2026 Catalogue

Research Models and Services

EASTERN EUROPE

charles river

ANIMALAB DISCOVERY PARTNER®

Raising the Standard of Research Success Together

A partnership that advances science efficiently, ethically, and with purpose.

Every study begins with a challenge. How to do more with less. Less time, fewer resources, tighter budgets – yet more expectations.

At Charles River, our role is to stand beside you and provide the services, expertise, and support that help you focus on what matters most: achieving meaningful outcomes that improve lives.

While our mission is driven by the 3Rs **- Replacement, Reduction, and Refinement -** to facilitate research that is more responsible, sustainable, and impactful, our goal is to deliver solutions that simplify planning and maximise budgets, without sacrificing quality.

As you explore the 2026 Research Models and Services Catalogue, consider these solutions designed to elevate efficiency, predictability, and scientific success.

Comprehensive Model Portfolio: Study-ready models for general-purpose and translational research, with custom model creation available for added specificity.

Strategic Breeding: Colony management services improve supply predictability, reduce variability, and streamline operational costs.

Sentinel-Free Monitoring: PathogenBinder® enables efficient health monitoring without sentinels.

From our low-stress handling programme to our online ordering system, every offering is designed to ease operational challenges, safeguard colonies, and raise the standard of research success. Together, we're not just advancing science-we're shaping a future where research is smarter, more compassionate, and more effective.

Contents

08 Pricing and Commercial Conditions
10 Ordering Information and Research Models Overview

Model	Nomenclature	Strain Code	United States	Germany	France	Italy	UK	Canada	JAX® Strain	Page
Rat Models										
18 Outbred Rats										
CD® IGS	Crl:CD(SD)	001	•		• •	•	•			18
Lister Hooded	Crl:LIS	603		•			•			18
Long Evans	Crl:LE	006	•			•				19
Wistar Han IGS	Crl:WI(Han)	273	•	•	•		•			19
Wistar WI IGS	Crl:WI	003	•	•				•		20
Wistar WU	Crl:WI(WU)	619		•						20
SAS Sprague Dawley®	Crl:SD	400	•							*
21 Inbred Rats										
Brown Norway	BN/Crl	091	•	•						21
Lewis	LEW/Crl	004	•	•			•			21
WAG	WAG/RijCrl	638				•				22
Fischer 344	F344/DuCrl	002	•							22
23 Disease and Translational Rat Models										
Wistar Kyoto WKY	WKY/NCrl	008	•	•						23
ZDF	ZDF-*Lepr^{fa}*/Crl	370 - 380	•		•					23
SHR	SHR/NCrl	007	•							24
SHHF	SHHF/MccGmiCrl-*Lepr^{cp}*/Crl	373 - 374	•							25
ZSF1	ZSF1-*Lepr^{fa}Lepr^{cp}*/Crl	378 - 379	•							25
Zucker	Crl:ZUC-*Lepr^{fa}*	185 - 186	•							25
PCK	PCK/CrljCrl-*Prkhd1^{pck}*/Crl	C	•							26
SS-13BN Rat	SS-Chr 13BN/McwiCrl	C	•							26
Zucker	Crl:ZUC(Orl)-*Lepr^{fa}*	C	•							26
Dahl/Salt Sensitive Rat	SS/JrHsdMcwiCrl	320	•							*

** not listed in the catalogue, C = Cryopreserved - • = SPF (VAF Plus) - • = SOPF (VAF Elite)*

Mouse Models

28 Outbred Mice

Model	Nomenclature	Strain Code	United States	Germany	France	Italy	UK	Canada	JAX® Strain	Page
CD-1® IGS	Crl:CD1(ICR)	022	●	●	●	●	●	●		28
NMRI	Crl:NMRI(Han)	605		●	● ●					28
OF1	Crl:OF1	612			●					29
SKH1	Crl:SKH1-*Hr*^{hr}	686		●						29
CF-1™	Crl:CF1	023	●							*
CFW® - Swiss Webster	Crl:CFW(SW)	024	●							*

30 Inbred Mice

Model	Nomenclature	Strain Code	United States	Germany	France	Italy	UK	Canada	JAX® Strain	Page
129	129S2/SvPasCrl	287			● ●					30
BALB/cByJ	BALB/cByJ	627			● ●				●	30
BALB/cN	BALB/cAnNCrl	028	●	●		●	●	●		31
C3H/J	C3H/HeOuJ	626		●					●	31
C3H/N	C3H/HeNCrl	025	●			●				32
C57BL/6J	C57BL/6J	632		●	● ●		● ●		●	33
Aged C57BL/6J	C57BL/6J	662			●		●		●	33
C57BL/6N	C57BL/6NCrl	027	● ●	●	●	●				34
CBA	CBA/CaCrl	609					●			34
CBA/J	CBA/J	624			●				●	35
DBA/2J	DBA/2J	625			●				●	35
DBA/2N	DBA/2NCrl	026	●	●		●				36
FVB	FVB/NCrl	207	●	●			●			36
B6 Albino	B6N-*Tyr*$^{c\text{-}Brd}$/BrdCrCrl	709				●				37
SJL Elite	SJL/JOrIIcoCrl	478	●							*

** not listed in the catalogue, C = Cryopreserved - ● = SPF (VAF Plus) - ● = SOPF (VAF Elite)*

Model	Nomenclature	Strain Code	United States	Germany	France	Italy	UK	Canada	JAX® Strain	Page
38 Hybrid Mice										
B6CBAF1/Crl	B6CBAF1/Crl	616					•			38
B6CBAF1/J	B6CBAF1/J	631			•				•	38
B6C3F1/Crl	B6C3F1/Crl	031	•			•				39
B6D2F1/Crl	B6D2F1/Crl	099	•	•						39
B6D2F1/J	B6D2F1/J	629			•				•	40
CD2F1	CD2F1/Crl	033	•			•				40
NMRCF1	NMRCF1/Crl	636			•					40
CB6F1	CB6F1/Crl	176	•	•						40
41 Disease Models										
K18-hACE2	B6.Cg-Tg(K18-ACE2)2Prlmn/J	704			•				•	41
ob/ob	B6.Cg-*Lep*^{ob}/J	606				•			•	41
db/db	BKS.Cg-*Dock7*^{m} +/+ *Lepr*^{db}/J	607				•			•	42
ApoE	B6.129P2-*Apoe*^{tm1Unc}/J	622				•			•	42
NOD	NOD/ShiLtJ	613				•			•	43
44 Inflammation and Immunology Models										
Ly5.1	B6.SJL-*Ptprc*^{a}*Pepc*^{b}/BoyCrl	494				•	•			44
OT I	C57BL/6-Tg(TcraTcrb)1100Mjb/Crl	642			•					44
OT II	C57BL/6-Tg(TcraTcrb)425Cbn/Crl	643			•					44

** not listed in the catalogue, C = Cryopreserved - • = SPF (VAF Plus) - • = SOPF (VAF Elite)*

Immunodeficient Models

Model	Nomenclature	Strain Code	United States	Germany	France	Italy	UK	Canada	JAX® Strain	Page
Athymic Nude	Crl:NU(NCr)-*Foxn1*^{nu}	490 - 491	•	•			•			48
CD-1® Nude	Crl:CD1-*Foxn1*^{nu}	086 - 087	•	•		•	•			48
Swiss Nude	Crl:NU(Ico)-*Foxn1*^{nu}	620 - 664			•					49
NMRI Nude	Crl:NMRI-*Foxn1*^{nu}	639 - 663		•						49
BALB/c Nude J	CByJ.Cg-*Foxn1*^{nu}/J	633 - 657			•				•	50
BALB/c Nude N	CAnN.Cg-*Foxn1*^{nu}/Crl	194 - 195	•	•			•			50
SCID	CB17/Icr-*Prkdc*^{scid}/IcrIcoCrl	236	•		•		•			50
NOD SCID N	NOD.CB17-*Prkdc*^{scid}/NCrCrl	394	•				•	•		51
NOD SCID J	NOD.Cg-*Prkdc*^{scid}/J	634			•				•	51
SCID Beige	CB17.Cg-*Prkdc*^{scid}*Lyst*$^{bg-J}$/Crl	250	•	•						52
NCG	NOD-*Prkdc*^{em26Cd52}*Il2rg*^{em26Cd22}/NjuCrl	572	•		•					52
NSG®	NOD.Cg-*Prkdc*^{scid} *Il2rg*^{tm1Wjl}/SzJ	614		•	•	•	•		•	53
NSG-MHC I/II DKO	NOD.Cg-*Prkdc*^{scid} *H2-K1*$^{b-tm1Bpe}$ *H2-Ab1*$^{g7-em1Mvw}$ *H2-D1*$^{b-tm1Bpe}$ *Il2rg*^{tm1Wjl}/SzJ	718		•			•		•	53
SRG Rat	Sprague Dawley-Rag2^{em2hera}*Il2rg*^{em1hera}/HblCrl	707	•	•						54
Nude Rat	Crl:NIH-*Foxn1*^{rnu}	316 - 118	•	•						54
NIH-III	Crl:NIH-*Lyst*$^{bg-J}$-*Foxn1*^{nu}*Btk*^{xid}	201 - 202	•							55
Nude Mouse	Crl:NU-*Foxn1*^{nu}	088 - 089	•							55
SHO®	Crl:SHO-*Prkdc*^{scid}*Hr*^{hr}	474	•							55

Rabbits, Guinea Pigs, Gerbils, Hamsters

57 Rabbits

New Zealand White	Crl:KBL(NZW)	052			•			•		57
Chinchilla Bastard	Crl:CrIg(CHB)	602			•					57

58 Guinea Pigs

Dunkin Hartley	Crl:HA	051			•			•		58

58 Gerbils

Gerbils	Crl:MON(Tum)	243	•			•				58

58 Hamsters

Syrian Hamster	Crl:LVG(SYR)	049	•							58

** not listed in the catalogue, C = Cryopreserved - • = SPF (VAF Plus) - • = SOPF (VAF Elite)*

59 Preconditioning Services, Surgery and Contract Services

60 ALZET® Osmotic Pumps

64 Research Animal Diagnostic Services

65 PRIA® Panels - Direct animal, EAD®, PathogenBinder®

66 Serology Profiles

67 Genetically Engineered Models and Services

68 Insourcing Solutions®

69 Resources

70 Glossary of Terms

73 General Terms and Conditions of Sale

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Prices effective 1st January 2026

Pricing and Commercial Conditions

The research model pricing listed in the catalogue is our standard pricing, but your organisation may be receiving preferred pricing. To find out more or discuss your upcoming projects please contact us.

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Cancellation Policy

Due to both ethical and commercial reasons, Charles River reserves the right to charge for late cancellations or changes to confirmed orders and/or delivery arrangements as follows:

Rodents:

- Standard outbred/inbred strains and standard age/weight ranges as given in the catalogue (standard age for catalogue strains ≤ 8 weeks old):
  - Up to 7 days before shipping date: no charge,
  - 7 days before shipping date: 100% charge.
- Specific strains and special age/weight ranges no cancellation allowed, “Take or pay”.
- Mated/pregnant females: no cancellation fee if the order is cancelled 3 weeks prior to mating date. Cancellation < 3 weeks from mating date: no cancellation allowed, “Take or pay”. After mating, we will invoice at the list price.

Guinea-pigs:

Cancellation accepted before the guinea-pigs are weaned (2 weeks).

Rabbits:

- Time-mated females:
  - 4 weeks before mating date, we will invoice the price of a 14-week-old animal.
  - 2 weeks before mating date, we will invoice the price of a 16-week-old animal.
  - 1 week before mating date, we will invoice the price of a 18-week-old animal.
  - 1 day before mating date, we will invoice the price of a time-mated female.
- Other rabbits: Cancellations accepted 7 days before delivery AND if rabbits are ≤10 weeks old, otherwise “Take or pay”.

Surgically Altered Models and Biospecimens:
No cancellation allowed, “Take or pay”.

Additional Charges / Specific orders

Our research models are sold within specific weight ranges or at a certain age as given in the catalogue. For orders of a more complex nature in quantity or specification, additional charges may apply. Upon order acknowledgement: no cancellation allowed, "Take or pay".

+ Learn more

Animal Model Evaluation Programme*

Which Animal Model is Right for Your Study?

Selecting the appropriate animal model for your studies is critical to the success of your research. The Charles River Animal Model Evaluation Programme allows you to assess the quality and compatibility of our animal models before making a commitment. Whether you have a new research protocol, are conducting or fine-tuning a pilot study, or simply exploring the opportunity to switch to a new animal model, this programme can help you make the right choice.

Animal Model Evaluation Programme Benefits

No Cost: Select the animal model you would like to evaluate and we will provide them to you at no cost. The requester will be responsible for freight and crate charges.

Risk Reduction: Determine whether a model fits your research protocols before making a significant time and financial investment.

Assess Quality: Assess the quality of our research animal models on your own terms.

Support: Experience Charles River's industry-leading customer support network.

*The programme includes many of our models, but not all. Volumes are limited. The requester will be responsible for freight and crate charges. This programme is only available in Europe and North America.

Animal Transport

Transportation by Accredited Trucks

Our animal deliveries are made in fully climate-controlled vans and trucks. Some export deliveries are transported by air freight. Transportation costs for animal orders are calculated according to the distance from our sites.

Our customer service department can provide you with information regarding the transportation routes and corresponding costs.

Weight Changes During Transport

Orders of animals with a weight specification will be refered to as the **packing weight.** As Charles River will have no control over potential weight changes during transport, we ask that you take this into account when planning your experiments and orders. Based on experience, we have noted that the way transport affects animal weight depends on the strain, sex, age and developmental status of the animals.

However, it is commonly found that rodents should return to their normal weight after an acclimatisation period of 24 to 48 hours after arriving at your facility. This may take a longer period of time for rabbits. This information is presented as guidance only, as weight recovery can also be influenced by the social position of the individual animals within their new hierarchies.

Shipping of Male Mice

Group-housed male mice may show aggressive behaviour, which might negatively impact the well-being of the animals and cause variations in experimental results.

At Charles River, adult male mice are housed in stable groups to minimise the risk of aggressive behaviour. When preparing the animals for shipping, every effort is made not to mix these groups.

Nevertheless mice can show aggressive behaviour after arrival at your facility due to differences in husbandry, new hierarchic structures that need to be established and hierarchy or influences caused by the experiment.

The housing of adult male mice that arrive at your facility from different crates should be avoided.

Strain Characteristics

The various strains bred by Charles River have unique and intrinsic zootechnical and behavioural characteristics that have to be taken into account when ordering the models. For all questions related to strain characteristics, please contact our customer scientific and technical support.

International Genetic Standardisation (IGS) Programme

Our unique International Genetic Standardisation (IGS) programme is designed to manage the health and genetics of your inbred/outbred mice and rat strains to ensure high quality and uniformity, regardless of where they are bred.

+ Learn more

IGS

SPF, SOPF, VAF/ Plus® and VAF/Elite® Health Status

Charles River is committed to providing you with high-quality genetically standardised models such as SPF (Specific Pathogen Free) and SOPF (Specific and Opportunistic Pathogen Free) animals which are free of select infectious agents and parasites. The terms SPF and SOPF are more commonly used in continental Europe while, VAF Plus and VAF Elite are more recognisable in the UK and North America.

SPF = VAF Plus and SOPF = VAF Elite; they are based on the same monitoring programmes in terms of agents screened, number and age of animals screened, frequency of testing, and recycling policies.

+ Learn more

Time-mated Females

Successful time mating of rodents is confirmed by the detection of positive signs of mating (e.g. the presence of a copulation plug). However, confirmation of mating is not a guarantee of pregnancy. We discourage pregnant animal shipments within the first 4-5 days of gestation (GD), when the embryo implantation generally occurs.

Shipping during that period may increase the risk of embryo loss and pregnancy termination.

+ Learn more

Shipping Lactating Female Rats or Mice with Pups

Please contact our customer service department to discuss modalities that are aligned with Council Regulation (EC) 1/2005 on the protection of animals during transport and national laws and regulations.

Age/Weight Correlation Information

Age/weight correlation information is presented on our website for each sex of most stocks and strains. The information is specific to the conditions maintained in Charles River barrier production rooms. Weight information related to the JAX® Mice strains are specific to the conditions maintained in Charles River's barrier production rooms as well. The shaded areas on each chart are the mean weight plus or minus one standard deviation at a given age averaged across all production facilities. This represents approximately 67% of the population, with the remaining 33% falling outside of this weight range. Overlaps in the full range of weights occur between age groups and will be more pronounced in outbred animals.
All our SOPF strains are sold by age only.

Weaning

The age of the animals is determined in weeks after weaning. Each strain has its own weaning procedure indicating when this step should take place.
By convention, the age of weaning is reported as 3 weeks (corresponding to the designation "21-27 days" on SAP documents).

An age of 3 weeks means that the mouse is in its weaning week and does not prejudge its exact age.

Thus, all mice weaned in week N are classified in the age group of 3 weeks (21-27 days) regardless of their actual age. They will then move into the 4 weeks age group (28-34 days) on the Monday of the week N + 1, then in the age group of 5 weeks (35-41 days) on Monday of the week N + 2, and so on.

Aged Animals

Aged animals are available upon reservation from 3 months up to 15 months for specific strains. The animals can be ordered by age ranges of 1 month. Specific strains are available across our European subsidiaries. Contact your local office for more information on pricing and reservations.

Humane Care Initiative

Charles River is committed to the humane care of the research animals produced and used in all of its activities. Our Humane Care Initiative supports this core value and is directed by our Animal Welfare and Training group.
All Charles River's employees are engaged to this humane care policy: continued education, signature of an ethical commitment, internal audits, and ethical information feedbacks.

+ Learn more

Quality Management

Charles River, Research Models and Services Germany (Sulzfeld), Italy (Calco) and UK (Margate) are certified ISO 9001.

AAALAC

Charles River is proud of the fact that all of our research model breeding and services facilities in Europe (UK, France, Germany and Italy) have received accreditation of their animal care and use programmes from the Association for the Assessment and Accreditation of Laboratory Animal Care (AAALAC) International. Only a handful of commercial breeders in Europe have received this prestigious accreditation.

AAALAC is an internationally recognised, nonprofit organisation that promotes the humane treatment of animals in science through voluntary accreditation and assessment programmes. AAALAC International accreditation is issued to organisations that demonstrate commitment to responsible animal care and use.

Participation in the accreditation process is voluntary and includes a site visit and programme evaluation conducted by the best animal care and use professionals and researchers from around the globe. The AAALAC Council on Accreditation then determines which institutions are to be accredited.

+ Learn more

The Jackson Laboratory

JAX® Mice and Clinical Research Services

The Jackson Laboratory and Charles River, Inc. have a cooperative agreement to provide local supplies of JAX® Mice and select services using JAX® Mice to biomedical researchers in Europe, Korea and Taiwan.

Through this agreement, Charles River serves as the exclusive, authorised, commercial distributor and breeder of JAX® Mice strains in the countries listed below.

- Albania
- Austria
- Belgium
- Bosnia-Herzegovina
- Bulgaria
- Croatia
- Czech Republic
- Denmark
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Korea
- Luxembourg
- Macedonia
- Montenegro
- Netherlands
- Norway
- Poland
- Portugal
- Serbia
- Slovenia
- Spain
- Sweden
- Switzerland
- Taiwan
- United Kingdom

JAX® Mice are The Gold Standard for Biomedical Research

Used by researchers around the world, JAX® Mice are the most frequently cited strains in biomedical research publications and are supported by world-renowned scientific and technical staff. JAX® Mice are produced according to the highest standards of animal health and genetic quality. Charles River provides researchers in Europe and Asia with expedited access to over 13,000 JAX® Mice strains and hundreds of new mouse models each year. JAX® Mice strains include commonly used inbred strains as well as thousands of specialised disease models and genetically engineered strains.

JAX® Mice are The Most Published, Best Characterised Mouse Models

JAX® Mice have been referenced in more than 30,000 peer reviewed publications.
Over 16,000 PubMed references cite use of the authentic JAX® Mice B6 strain (C57BL/6J, stock number 000664). The JAX® Mice B6 strain, along with many other JAX® Mice inbred strains have been fully sequenced as part of the Mouse Genome Project (see: www.sanger.ac.uk/science/data/mouse-genomes-project). The genome sequence data of JAX® Mice strains will remain relevant over time due to the rigorous genetic quality programmes (including the JAX® patented Genetic Stability Programme) used to breed JAX® Mice Strains. Additional genetic and phenotypic information about JAX® Mice is publicly available in data resources hosted by The Jackson Laboratory, including Mouse Genome Informatics (informatics.jax.org) and The Mouse Phenome Database (phenome.jax.org).

Only JAX® Mice Strains bred by Charles River in Europe are equivalent in genetic quality to those bred by The Jackson Laboratory

AUTHORIZED DISTRIBUTOR OF

The Jackson Laboratory

Charles River in Europe breed JAX® Mice in strict adherence to The Jackson Laboratory's breeding protocols and genetic quality control guidelines. These protocols provide the following benefits:

- Minimise naturally occurring genetic drift by systematically re-infusing breeding colonies with pedigreed mice from The Jackson Laboratory.
- Assure genetic quality through routine use of state-of-the-art genetic quality monitoring methods such as SNP analysis.

Under these conditions, JAX® Mice strains bred by Charles River are:

- Equivalent in genetic quality to those bred by The Jackson Laboratory.
- Provide the genetic integrity and stable phenotypes needed to support research excellence.

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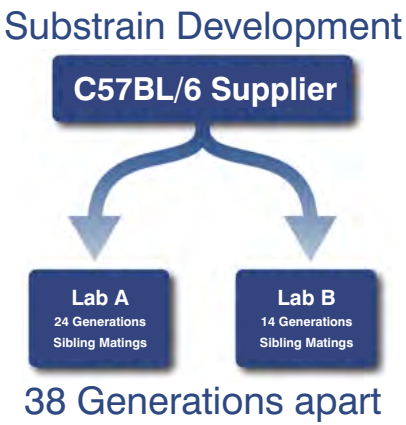
"J" Substrains Differ from Authentic JAX® Mice Strains Due to Genetic Drift

Over the years, organisations around the world have been maintaining colonies of mouse substrains with JAX® Mice ancestry ("J" substrains). These "J" substrains differ from JAX® Mice strains due to the genetic mutations which spontaneously occur and accumulate in mouse breeding colonies over time.

Due to naturally occurring genetic drift, a mouse strain will diverge into a genetically distinct substrain if its breeding colony is separated from the parental breeding colony for more than 20 generations of breeding (i.e. 10 generations in the parent colony plus the 10 that simultaneously pass in the sub-colony*). This divergence can occur within only a few years. Genetic differences between a parental strain and a substrain accumulate with time and at a rate dependent upon the level of quality control at the facilities housing and breeding the mice. These genetic differences often result in phenotype differences between a parental strain and a substrain. Such differences confound interpretation of experimental results especially when comparing results to published research using JAX® Mice strains.

IMPORTANT NOTE: JAX® Mice strains bred by Charles River are authentic JAX® Mice and are NOT genetically drifted "J" substrains.

** For more information on mouse nomenclature and substrain divergence, see http://www.informatics.jax.org/mgihome/nomen/strains.shtml#substrains.*



Genetic Drift White Paper

For further information on genetic drift and how it can impact your studies, please feel free to download the white paper entitled, "Strategies to Minimise Genetic Drift and Maximize Experimental Reproducibility in Mouse Research."

Patented Genetic Stability Programme

The JAX® patented Genetic Stability Programme (GSP) effectively prevents cumulative genetic drift, including that caused by copy number variation, in the most popular strains of JAX® Mice.

The GSP programme effectively limits cumulative genetic drift by refreshing The Jackson Laboratory's foundation stocks with cryopreserved pedigree embryos or gametes approximately every five generations. The programme was initiated in 2003 (Taft et al. 2006) and is covered by 2009 US patent 7,592,501 and 2012 US patent 8,110,721.

The Jackson Laboratory's unique, patented GSP has several components: 1) an extensive supply of cryopreserved stock for each strain; 2) isolated foundation colonies, maintained by inbreeding for only five generations before refreshing with cryo-recovered stock; 3) large, independent expansion and production colonies fed directly from pedigreed colonies for distribution through The Jackson Laboratory and through Charles River in Europe. Importantly, the generations between the cryopreserved stocks and mice produced for distribution are kept to a minimum to prevent the accumulation of mutations that result in genetic drift (http://www.jax.org/gsp).

** The Jackson Laboratory's innovative Genetic Stability Programme is covered by 2009 US patent 7,592,501 and 2012 US patent 8,110,721.*

Importance of Indicating Strain Lineage and History using Proper Strain Nomenclature

Proper mouse strain nomenclature, as established by the International Committee on Standardised Genetic Nomenclature for Mice, provides researchers with essential information about the lineage and history of inter-laboratory transfers of substrains over time.

Using proper strain nomenclature requires including in the strain name all Laboratory Codes (i.e., a unique 2-4 letter code assigned to each investigator or institution) as a means to identify all investigators or institutions which have maintained a strain or substrain.

Research Services Using JAX® Mice

Charles River breeding facilities located in Europe also serve as The Jackson Laboratory's exclusive commercial providers of certain research services using JAX® Mice bred by Charles River. Services offered include:

- Biospecimen provision
- Cross-breeding
- Custom breeding
- Dedicated supply
- DIO (Diet Induced Obesity) studies
- Health monitoring
- Recovery of cryopreserved embryos
- Surgeries
- Genotyping

Importing JAX® Mice strains

The Jackson Laboratory is home to over 13,000 JAX® Mice strains with hundreds of new models added each year. Through The Jackson Laboratory agreement with Charles River, European researchers have access to mouse strains suitable for research applications covering every major therapeutic area.

Importation Process:

- Select a JAX® Mice strain of interest. Please contact us should you require assistance in making a selection, or more information regarding your chosen strain.
- Request a JAX® Mice order form from Charles River.
- Upon receipt of the form, Charles River will provide availability details and a price quotation.
- The final steps will be handled by our teams including: order management, freight processing, documentation for customs purposes, customs and veterinary clearance, taxes and duties.

Our experienced customer service staff aim to make the process as smooth as possible. Please be aware that Charles River will not be responsible for any damages arising while mice are in the care of non-Charles River transport companies (e.g. airlines), and that delays can occur during adverse weather conditions for animal welfare reasons.

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For Technical Support

Technical information is available by telephone:

- in France: +33 (0)4 74 01 69 20
- in Germany: +49 (0)9761/406 49
- in U.K.: 0845 6013160
- in Italy: +39 039 509915
- or on the web at: www.criver.com and askcharlesriver@crl.com

Contact our customer service teams to discuss your requirements

Educational Information on Mouse Genetics and Strain Nomenclature

Handbook on Genetically Standardized Mice.

Genetic Quality Control and Stability Programs.

Quick Guide to Mouse Nomenclature.

Published Reference: Taft RA, Davisson M, Wiles MV. 2006 Know Thy Mouse.
Trends Genet 22:649-53.

By importing JAX® models through Charles River, the customer accepts both General Terms and Conditions of Sale of Charles River and The Jackson Laboratory.

Rat Models

+ Heath Profiles

CD® IGS (Sprague Dawley) Rats

Strain Code: 001

Nomenclature: Crl: CD(SD)

+ Learn more

Weight in Grams	Male Price - €	Female Price - €
≤50	17,20	17,20
51-75	18,69	18,69
76-100	23,80	23,80
101-125	26,59	26,59
126-150	29,06	29,06
151-175	31,56	31,56
176-200	35,14	35,14
201-225	37,45	37,45
226-250	39,43	39,43
251-275	42,01	42,01
276-300	46,69	Upon Request
>300	Upon Request	Upon Request
Retired breeder	21,70	21,70
Pregnant / time mated females	-	Upon Request
Female with litter (males or females)	-	Upon Request

Origin: Originated in 1925 by Robert W. Dawley from a hybrid hooded male and a female Wistar rat. Introduced into Charles River in 1950 from Sprague Dawley®. Caesarean derived in 1955 from original Charles River SD colonies to form the nucleus of the currentt CD® stock.

Coat Colour: Albino.

Research Application: General multipurpose model, safety and efficacy testing, aging, nutrition, diet-induced obesity, oncology, surgical model.

IGS Production colonies are developed from the Foundation Colony and managed according to the Charles River International Genetic Standardization programme.

SOPF **Also available with SOPF health status (Strain code: 687). Please enquire for pricing.**

Lister Hooded

Strain Code: 603

Nomenclature: Crl:LIS

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Weight in Grams	Male Price - €	Female Price - €
≤50	28,27	28,27
51-75	31,55	31,55
76-100	35,13	35,13
101-125	38,71	38,71
126-150	42,54	42,54
151-175	46,41	46,41
176-200	50,54	50,54
201-225	54,97	54,97
226-250	59,41	59,41
251-275	63,83	63,83
276-300	68,55	68,55
>300	Upon Request	Upon Request
Retired breeder	39,70	39,70
Pregnant / time mated females	-	Upon Request
Female with litter (males or females)	-	Upon Request

Origin: These rats have taken their name from the Lister Institute, where the stock first originated. From Glaxo to Charles River UK in 1990 and again in 1996. To Charles River Germany in 2007.

Coat Colour: White with black hood.

Research Application: Noted for its docility and good breeding performance. Susceptible to audiogenic seizures.

Long Evans Rat

Strain Code: 006
Nomenclature: Crl:LE

+ Learn more

Age in Days	Male Price - €	Female Price - €
28-34 (4 weeks)	52,90	52,90
35-41 (5 weeks)	63,09	63,09
42-48 (6 weeks)	70,23	70,23
49-55 (7 weeks)	78,35	78,35

Origin: Originated by Drs. Long and Evans in 1915 by cross of several Wistar Institute white females with a wild gray male. To Charles River from Canadian Breeding Farm and Laboratories in 1978. Caesarean rederived in 1978.

Coat Colour: White with black hood; occasionally white with brown hood.

Research Application: General multipurpose model, behavioural research, diet-induced obesity.

Wistar Han IGS (International Genetic Standard) Rat

Strain Code: 273
Nomenclature: Crl:WI(Han)

+ Learn more IGS

Weight in Grams	Male Price - €	Female Price - €
≤50	16,44	16,44
51-75	18,87	18,87
76-100	23,63	23,63
101-125	26,31	26,31
126-150	28,99	28,99
151-175	31,94	31,94
176-200	34,77	34,77
201-225	37,00	Upon Request
226-250	39,14	Upon Request
251-275	41,63	-
276-300	45,35	-
>300	Upon Request	-
Retired breeder	31,24	31,24
Pregnant / time mated females	-	Upon Request
Female with litter (males or females)	-	Upon Request

Origin: Rederived by Glaxo Wellcome from Han Wistar stock supplied by BRL. Transferred to Charles River in 1997.

Coat Colour: Albino.

Research Application: General multipurpose model, safety and efficacy testing, aging, oncology, surgical model.

IGS Production colonies are developed from the Foundation Colony and managed according to the Charles River International Genetic Standardization programme.

Wistar IGS (International Genetic Standard) Rat

Strain Code: 003

Nomenclature: Crl:WI

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IGS

Weight in Grams	Male Price - €	Female Price - €
≤50	17,07	17,07
51-75	19,58	19,58
76-100	24,55	24,55
101-125	27,33	27,33
126-150	30,08	30,08
151-175	33,17	33,17
176-200	36,09	36,09
201-225	38,44	Upon Request
226-250	40,65	Upon Request
251-275	43,24	-
276-300	47,09	-
>300	Upon Request	-
Retired breeder	34,61	34,61
Pregnant / time mated females		Upon Request
Female with litter (males or females)	-	Upon Request

Origin: To Scientific Product Farms Ltd (previous owner of Charles River UK) in 1947 from Wistar Institute. To Charles River USA in 1975 from Charles River UK. Caesarian derived in 1975 to form the nucleus of the current Wistar rat colonies.

Coat Colour: Albino.

Research Application: General multipurpose model, infectious disease research, safety and efficacy testing, aging, surgical model.

IGS Production colonies are developed from the Foundation Colony and managed according to the Charles River International Genetic Standardization programme.

Wistar Wu Rat

Strain Code: 619

Nomenclature: Crl:WI(WU)

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Weight in Grams	Male Price - €	Female Price - €
51-75	24,82	24,82
76-100	28,83	28,83
101-125	31,90	31,90
126-150	35,58	35,58
151-175	38,31	38,31
176-200	41,06	41,06
201-225	44,50	Upon Request
226-250	47,00	Upon Request
251-275	50,74	Upon Request
276-300	Upon Request	-
>300	Upon Request	-
Retired breeder	Upon Request	38,75
Pregnant / time mated females	-	Upon Request
Female with litter (males or females)	-	Upon Request

Origin: Selection by H.H. Donalson at the Wistar-Institute, USA, at the begining of 20th century. To Glaxo in 1927, continued as inbred. To Nederlands-Institute voor Volksfoending in 1933, to Unilever, Vlaardingen in 1941 and Institut Centraale Proefdierenbedrijf TNO in 1958. Caesarean rederived in 1963. As an outbred to SAVO, Kißlegg in 1975. Caesarean rederived at Charles River in 1987.

Coat Colour: Albino.

Research Application: General multipurpose model, toxicology, safety and efficacy testing, aging.

Brown Norway Rats

Strain Code: 091
Nomenclature: BN/Crl

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	72,39	72,39
28-34 (4 weeks)	77,49	77,49
35-41 (5 weeks)	95,69	95,69
42-48 (6 weeks)	107,09	107,09
49-55 (7 weeks)	112,13	112,13
56-62 (8 weeks)	126,22	126,22
Additional week (up to 12 weeks)	14,05	14,05

Origin: Silvers and Billingham began brother x sister matings with selection for haplotype in 1958 from a brown mutation in a stock of wild rats maintained by King and Aptekman in a pen-bred colony rats trapped from the wild in 1930 by King at the Wistar Institute. To Charles River from Radiobiology Institute, Netherlands in 1976.

Coat Colour: Non-agouti brown.

Research Application: Genetic mapping, respiratory inflammation, immunological dysfunction, aging, transplantation research.

Lewis Rats

Strain Code: 004
Nomenclature: LEW/Crl

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	56,66	56,66
28-34 (4 weeks)	58,16	58,16
35-41 (5 weeks)	75,02	75,02
42-48 (6 weeks)	79,47	79,47
49-55 (7 weeks)	84,45	84,45
56-62 (8 weeks)	91,96	91,96
Additional week (up to 12 weeks)	Upon Request	Upon Request

Origin: Developed by Dr. Lewis from Wistar stock in the early 1950s. To Charles River from Tulane in 1970 at F34. Hysterectomy rederived in 1975.

Coat Colour: Albino.

Research Application: Transplantation research, induced arthritis/inflammation, experimental allergic encephalitis, STZ-induced diabetes.

WAG Rats

Strain Code: 638
Nomenclature: WAG/RijCrl

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	Upon Request Breeding colonies for the WAG rat will fluctuate in size depending on current demand. Please contact your local customer service department for pricing and an estimated lead time for delivery.	
28-34 (4 weeks)		
35-41 (5 weeks)		
42-48 (6 weeks)		
49-55 (7 weeks)		
56-62 (8 weeks)		

Origin: A.L. Bacharach, Glaxo Labs., U.K., 1924, from a Wistar stock. To Harrington in 1964 at F83. To MBL-TNO in 1953, after that to REP Institutes TNO, Rijswijk. To Charles River Germany from REP Institutes TNO in 1993.

Coat Colour: Albino.

Research Application: General multipurpose model, epilepsy, behaviour, immunology.

Fischer 344 Rats

Strain Code: 002
Nomenclature: F344/DuCrl

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	Upon Request Please contact your local customer service department for pricing and an estimated lead time for delivery.	
28-34 (4 weeks)		
35-41 (5 weeks)		
42-48 (6 weeks)		
49-55 (7 weeks)		
56-62 (8 weeks)		
Additional week (up to 12 weeks)		

Origin: From mating #344 of rats purchased from a local breeder (Fischer). Colony originated by M.R. Curtis, Columbia University Institute for Cancer Research, 1920. Dunning at Columbia continued to inbreed to form the strain starting in 1920. Dunning to Charles River in 1960 at F68. Caesarean rederived in 1960.

Coat Colour: Albino.

Research Application: General multipurpose model, aging, safety and efficacy testing, surgical model, oncology, nutrition.

Wistar Kyoto Rats

Strain Code: 008

Nomenclature: WKY/NCrl

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	59,66	59,66
28-34 (4 weeks)	62,27	62,27
35-41 (5 weeks)	66,40	66,40
42-48 (6 weeks)	74,15	74,15
49-55 (7 weeks)	86,56	86,56
56-62 (8 weeks)	93,94	93,94
Additional week	13,66	13,66

Origin: Strain started by Okamoto from outbred Wistar stock at the Kyoto School of Medicine, in 1963. To NIH in 1971. This is the same stock from which the SHR was developed. To Charles River in 1974 at F11.

Coat Colour: Albino.

Research Application: Control for the SHR rat, ADHD model.

POSTER: Metabolic and Cardiovascular Disease Models

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ZDF Rats

Strain Code: 370

Nomenclature: ZDF-*Lepr*^{fa}/Crl

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	Male Price - €		Female Price - €	
Age in Days	Diabetic fa/fa - €	Control fa/+ - €	Diabetic fa/fa - €	Control fa/+ - €
42-48 (6 weeks)	1103,71	427,37	Upon Request	
49-55 (7 weeks)	1137,38	466,67		
56-62 (8 weeks)	1175,48	501,58		
63-69 (9 weeks)	1216,49	538,24		
70-76 (10 weeks)	1250,81	577,70		
Additional week (up to 12 weeks)	20,49	20,49		

Origin: The diabetic trait occured in a colony of outbred Zucker rats at Eli Lilly Research Laboratories, USA, during 1974-1975. Part of this colony was moved to Indiana Universitty Medical School (IUMS) in 1977. Animals with diabetic lineage were identified and rederived in 1981. The inbred line of ZDF rat was established in 1985. To Genetic Models Inc. (GMI) in 1991 and to Charles River in 2001.

Coat Colour: White with black hood.

Diet: Purina 5008.

Research Application: Type 2 diabetes, hyperlipidemia, glucose intolerance, obesity, hyperinsulinemia.

ZDF Control Information

Strain Code: 380

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Lean animals are available as possible controls. The zygosity is fa/+.

It is a condition of sale that customers (or their employees) purchasing or receiving ZDF rats are not permitted to breed or cross breed ZDF rats without the prior written approval of Charles River.

SHR Rats

Strain Code: 007
Nomenclature: SHR/NCrl

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	Upon Request Please contact your local customer service department for pricing and an estimated lead time for delivery.	
28-34 (4 weeks)		
35-41 (5 weeks)		
42-48 (6 weeks)		
49-55 (7 weeks)		
56-62 (8 weeks)		
63-69 (9 weeks)		
70-76 (10 weeks)		
Additional week		

Origin: To NIH in 1966 from Okamoto at F 13. From an outbred Wistar Kyoto male with marked elevation of blood pressure. To Charles River from NIH in 1973 at F 32. Caesarean derived in 1973.

Coat Colour: Albino.

Research Application: Genetic hypertension, hypertensive drug research, ADHD model, safety and efficacy testing.

Other Metabolic, Renal and Cardiovascular Rat Models Available from Charles River*

Spontaneously Hypertensive Heart Failure (SHHF) Model Rats

Strain Code: 373 (Obese), 374 (Lean +/?)
Nomenclature: SHHF/MccGmiCrl-*Lepr*^{cp}/Crl.

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Research Application: Heart failure, hypertension, type 2 diabetes, nephropathy, insulin resistance.

Zucker Rats

Strain Code: 185 (Obese), 186 (Lean)
Nomenclature: Crl:ZUC-*Lepr*^{fa}

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Research Application: Insulin resistance, glucose intolerance, metabolic syndrome, genetic obesity.

ZSF1 Rats

Strain Code: 378 (Obese), 379 (Lean +/?)
Nomenclature: ZSF1-*Lepr*^{fa} *Lepr*^{cp}/Crl.

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Research Application: Hypertension, hyperlipidemia, nephropathy, metabolic syndrome.

It is a condition of sale that customers (or their employees) purchasing or receiving this strain are not permitted to breed or cross breed this strain without the prior written approval of Charles River.

**Limited availability, upon reservation from Charles River USA*

Cryopreserved

PCK
Nomenclature: PCK/CrljCrl-*Prkhd1*^{pck}/Crl

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SS-13BN Rat
Nomenclature: SS-Chr 13BN/McwiCrl

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Zucker Rat
Nomenclature: Crl:ZUC(Orl)-*Lepr*^{fa}

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Mouse Models

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CD-1® IGS (International Genetic Standard) Mice

Strain Code: 022

Nomenclature: Crl:CD1(ICR)

+ Learn more IGS

Weight in Grams	Male Price - €	Female Price - €
10-12	7,15	7,15
12-14	7,37	7,37
14-16	7,98	7,98
16-18	8,63	8,63
18-20	9,05	9,05
20-22	9,80	9,80
22-24	10,25	10,25
> 24 g / (per 2 g)	Upon Request	Upon Request
Retired breeder	Upon Request	Upon Request
Time mated females	-	Upon Request
Female with litter (males and females)	-	Upon Request
Pregnant	-	Upon Request

Origin: The original group of Swiss mice that served as progenitors of this stock consisted of two male and seven female albino mice derived from a non-inbred stock in the laboratory of Dr. de Coulon, Centre Anticancereux Romand, Lausanne, Switzerland. These animals were imported into the United States by Dr. Clara Lynch of the Rockefeller Institute in 1926. The Hauschka Ha/ICR stock was initiated in 1948 at the Institute for Cancer Research in Philadelphia from "Swiss" mice of Rockefeller origin.
To Dr. Edward Mirand of Roswell Park Memorial Institute where they were designated as HaM/ICR.
To Charles River in 1959 and hysterectomy rederived that same year.

Coat Colour: Albino.

Research Application: General multipurpose model, safety and efficacy testing, aging, pseudopregnancy, surgical model.

IGS Production colonies are developed from the Foundation Colony and managed according to the Charles River International Genetic Standardization programme.

SOPF **Also available with SOPF health status (Strain code: 482). Please enquire for pricing.**

NMRI Mice

Strain Code: 605

Nomenclature: Crl:NMRI(Han)

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Weight in Grams	Male Price - €	Female Price - €
10-12	8,50	8,50
12-14	9,15	9,15
14-16	9,75	9,75
16-18	10,39	10,39
18-20	11,01	11,01
20-22	12,13	12,13
22-24	12,66	12,66
> 24 g / (per 2 g)	1,44	1,44
Retired breeder		Upon Request
Time mated females	-	Upon Request
Female with litter (males and females)	-	Upon Request
Pregnant	-	Upon Request

Origin: Swiss-type mouse, which Clara Lynch gave to Poiley in 1937. He maintained an inbred line of this animal until the 51st generation, before he transferred it to the Naval Medical Research Institute. Introduced into Charles River in 1979 from the Central Institute for Laboratory Animal Breeding - Hannover (Germany).

Coat Colour: Albino.

Research Application: General purpose model, toxicology, teratology, pharmacology (especially in psychopharmacology for behavioural studies) and physiology.

SOPF **Also available with SOPF health status (Strain code: 679). Please enquire for pricing.**

OF1 Mice

Strain Code: 612
Nomenclature: Crl:OF1

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Weight in Grams	Male Price - €	Female Price - €
10-12	6,72	6,72
12-14	7,26	7,26
14-16	7,37	7,37
16-18	7,84	7,84
18-20	8,33	8,33
20-22	8,82	8,82
22-24	9,63	9,63
> 24 g / (per 2 g)	Upon Request	Upon Request
Retired breeder	6,24	6,24
Time mated females	-	72,18
Female with litter (males and females)	-	120,74
Pregnant	-	82,17

Origin: In 1935, Carworth Farms began to select a line of vigorous and productive mice. Progenitors originating from a colony bred in Missouri were bought and the strain was named CF1 (Carworth Farms strain 1). This strain was introduced at Charles River France in 1967, and it acquired the name OF1 (Oncins France 1).

Coat Colour: Albino.

Research Application: Model for general use including toxicology, teratology, pharmacology and physiology.

SKH1 Hairless Mice

Strain Code: 686
Nomenclature: Crl:SKH1-*Hr*^{hr}

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Age in Days	Male Price - €	Female Price - €
28-34 (4 weeks)	79,68	79,68
35-41 (5 weeks)	84,68	84,68
42-48 (6 weeks)	90,24	90,24

Origin: An uncharacterised / non-pedigreed hairless strain of mice was acquired by Temple University from a small commercial supplier in New York City. To Charles River from the Skin and Cancer Hospital, Temple University in 1986. The mouse is euthymic and immunocompetent.

Coat Colour: Hairless, albino.

Research Application: Wound healing model, dermatology, safety and efficacy testing.

129 Mice

Strain Code: 287

Nomenclature: 129S2/SvPasCrl

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	66,90	66,90
28-34 (4 weeks)	72,12	72,12
35-41 (5 weeks)	77,17	77,17
42-48 (6 weeks)	82,30	82,30
49-55 (7 weeks)	88,01	88,01
56-62 (8 weeks)	93,74	93,74
Additional week	5,34	5,34

Origin: The 129/Sv inbred strain genotype C-P (wild-type alleles at the “albino” and “pink-eyed dilution” loci) was established by Dr LC Stevens from The Jackson Laboratory. Because of his interest in testicular teratomas which are extremely frequent in the 129 inbred strain, he investigated the effect of certain mouse mutations, which affect the male germ line, on the frequency of these tumors. One of these mutations was “steel” (Sl) which, at the heterozygous state, is responsible for a dilution of the coat colour and a depigmentation of the tail tip. The original 129 inbred strain is homozygous for the two recessive mutations “chinchilla” (Tyrc-ch) and “pink-eyed dilution” (p). Its coat colour is cream. In order to distinguish the effect of the “steel” mutation on the coat colour, Dr Stevens introduced by repeated backcrosses the wild-type alleles at the “albino” and “pink-eyed dilution” loci from the C3H/He inbred strain.This is the reason why the 129/Sv inbred strain, unlike other 129 strains, has an agouti coat colour. Testicular teratomas have an incidence of approximately 1% as this strain does not carry the Dnd1Ter mutation. In the seventies, Dr Stevens introduced the 129/Sv strain to the institut Pasteur in the Laboratory of Dr JL Guenet, where it has been maintained for over 20 years, Charles River France acquired this strain in August 1996. The strain was renamed 129S2 in 1999 after the revision of the international nomenclature.

Coat Colour: Agouti.

Research Application: Transgenic/knockout model development, large number of unmyelinated axons in lumbar motor roots.

SOPF **Also available with SOPF health status (Strain code: 476). Please enquire for pricing.**

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JAX® Mice Strain: BALB/cByJ

Strain Code: 627

Nomenclature: BALB/cByJ

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	24,97	24,97
28-34 (4 weeks)	25,47	25,47
35-41 (5 weeks)	27,84	27,84
42-48 (6 weeks)	30,03	30,03
49-55 (7 weeks)	34,15	34,15
56-62 (8 weeks)	38,32	38,32
Additional week (up to 12 weeks)	4,57	4,57
Retired breeder	21,22	21,22

Origin: The breeding colony for this strain is derived from and systematically reinfused with pedigreed JAX® Mice stock obtained from The Jackson Laboratory. Charles River adheres to The Jackson Laboratory’s breeding protocols and genetic quality programme to maintain this breeding colony.
Mice from this colony are genetically equivalent to those bred by The Jackson Laboratory and are considered authentic JAX® Mice strains which are designated with a ‘J’ as the final letter in the strain nomenclature. JAX® Mice Strains are for internal research use only and should not be propagated for distribution or sale.

Coat Colour: Albino.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/001026. For physiological strain data, see Mouse Phenome Database at jax.org/mpd-001026.

Research Application: Oncology, immunology, inflammation, autoimmunity, neurobiology.

The Jackson Laboratory’s Genetic Stability Programme is covered by 2009 US patent 7,592,501 and 2012 US patent 8,110,721.

SOPF **Also available with SOPF health status (Strain code: 678). Please enquire for pricing.**

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BALB/cAnNCrl Mice

Strain Code: 028

Nomenclature: BALB/cAnNCrl

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IGS

Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	22,29	22,29
28-34 (4 weeks)	23,41	23,41
35-41 (5 weeks)	25,07	25,07
42-48 (6 weeks)	27,87	27,87
49-55 (7 weeks)	29,78	29,78
56-62 (8 weeks)	32,26	32,26
Additional week	4,15	4,15
Retired breeder	21,19	21,19
Time mated females	-	Upon Request
Female with litter (males and females)	-	Upon Request
Pregnant	-	Upon Request

Origin: H.J Bagg developed the "Bagg albino" in 1913 using stock from an Ohio pet dealer. Inbred in 1923 by McDowell. To Snell in 1932 at F26, to Andervont in 1935. To NIH at F72 in 1951. To Charles River USA from NIH in 1974. Caesarian derived in 1975. This strain has been very widely used for *in vivo* production of monoclonal antibodies by the ascites method because of its haplotype with many hybridoma cell lines (BALB/c mouse melanoma [NS1] fusion products). This mouse is also used frequently for imunisation and B-cell collection. Low incidence of mammary tumors (10-20%). Arteriosclerosis common in both sexes. Male aggression is frequently overestimated.

Haplotype: H-2^d.

Coat Colour: Albino.

Research Application: General multipurpose model, hybridoma development, monoclonal antibody production, infectious disease.

IGS Production colonies are developed from the Foundation Colony and managed according to the Charles River International Genetic Standardization programme.

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JAX® Mice Strain: C3H/HeOuJ

Strain Code: 626

Nomenclature: C3H/HeOuJ

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	32,14	32,14
28-34 (4 weeks)	35,29	35,29
35-41 (5 weeks)	37,20	37,20
42-48 (6 weeks)	41,06	41,06
49-55 (7 weeks)	44,93	44,93
56-62 (8 weeks)	48,83	48,83
Additional week	5,08	5,08
Retired breeder	35,19	35,19

Origin: The breeding colony for this strain is derived from and systematically reinfused with pedigreed JAX® Mice stock obtained from The Jackson Laboratory. Charles River adheres to The Jackson Laboratory's breeding protocols and genetic quality programme to maintain this breeding colony. Mice from this colony are genetically equivalent to those bred by The Jackson Laboratory and are considered authentic JAX® Mice strains which are designated with a 'J' as the final letter in the strain nomenclature. JAX® Mice Strains are for internal research use only and should not be propagated for distribution or sale.

Coat Colour: Agouti.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/000635. For physiological strain data, see Mouse Phenome Database at jax.org/mpd-000635.

Research Application: Safety and efficacy testing, oncology, neurological disorders, retinal degeneration.

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C3H/HeNCrl Mice

Strain Code: 025
Nomenclature: C3H/HeNCrl

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	29,18	29,18
28-34 (4 weeks)	31,19	31,19
35-41 (5 weeks)	33,33	33,33
42-48 (6 weeks)	36,22	36,22
49-55 (7 weeks)	41,31	41,31
56-62 (8 weeks)	44,70	44,70
Additional week	4,32	4,32
Retired breeder	31,03	31,03
Female with litter (males and females)	-	Upon Request

Origin: From a cross of a Bagg albino female and a DBA male by Strong in 1920. A litter of 4 females and 2 males sent to Andervont in 1930; then to Heston at F35. To NIH in 1951 from Heston at F57.
To Charles River USA from NIH in 1974. Caesarian derived in 1975. 85% hepatomas at 14 months.
This is an MMTV negative strain and hence does not show high incidence of mammary tumours. Resistant to Leishmania infection. High complement activity. Retinal degeneration allele (Pde6b, formely known as rd) is carried on chromosome 5. Mated females are highly susceptible (89%) to cardiac calcinosis.

Haplotype H-2^{k}.

Coat Colour: Agouti.

Research Application: Safety and efficacy testing, oncology, neurological disorders, retinal degeneration.

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JAX® Mice Strain: C57BL/6J

Strain Code: 632

Nomenclature: C57BL/6J

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	24,24	24,24
28-34 (4 weeks)	26,04	26,04
35-41 (5 weeks)	28,83	28,83
42-48 (6 weeks)	31,19	31,19
49-55 (7 weeks)	33,92	33,92
56-62 (8 weeks)	38,02	38,02
Additional week (up to 12 weeks)	4,56	4,56
Retired breeder	22,06	22,06
Time mated females	-	Upon Request
Female with litter (males and females)	-	Upon Request
Pregnant	-	Upon Request

Origin: The breeding colony for this strain is derived from and systematically reinfused with pedigreed JAX® Mice stock obtained from The Jackson Laboratory. Charles River adheres to The Jackson Laboratory's breeding protocols and genetic quality programme to maintain this breeding colony.
Mice from this colony are genetically equivalent to those bred by The Jackson Laboratory and are considered authentic JAX® Mice strains which are designated with a 'J' as the final letter in the strain nomenclature. JAX® Mice Strains are for internal research use only and should not be propagated for distribution or sale.

Coat Colour: Black.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/000664. For physiological strain data, see Mouse Phenome Database at jax.org/mpd-000664.

Research Application: General multipurpose model, diet-induced obesity, transgenic/knockout model development, safety and efficacy testing, immunology.

The Jackson Laboratory's Genetic Stability Programme is covered by 2009 US patent 7,592,501 and 2012 US patent 8,110,721.

SOPF **Also available with SOPF health status (Strain code: 680). Please enquire for pricing.**

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Aged models C57BL/6J*

Strain Code: 662

Nomenclature: C57BL/6J

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Age in Months	Male Price - €	Female Price - €
4 months	86,96	86,96
5 months	99,81	99,81
6 months	106,95	106,95
7 months	119,31	119,31
8 months	128,65	128,65
9 months	131,48	131,48
10 months	135,18	135,18
11 months	147,27	147,27
12 months	153,25	153,25
13 months	163,26	163,26
14 months	173,01	173,01
15 months	200,19	200,19

** C57BL/6J mice are raised as age cohorts and shipped as such to minimise aggression, and divided or additional crates may be used to maintain original cohorts. Upon arrival at your facility, we recommend maintaining the housing group to preserve the established hierarchies whenever possible.*

Study-ready aged C57BL/6J males and females are available off-the-shelf between 12 - 68 weeks of age. For aged C57BL6/J > 68 weeks old, please consult us.

Research Application: Immunology, cancer, longevity interventions, and biomarker studies.

Aged C57BL/6NCrl also available. Please enquire for pricing.

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C57BL/6NCrl Mice

Strain Code: 027

Nomenclature: C57BL/6NCrl

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IGS

Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	21,61	21,61
28-34 (4 weeks)	23,62	23,62
35-41 (5 weeks)	25,92	25,92
42-48 (6 weeks)	27,65	27,65
49-55 (7 weeks)	29,26	29,26
56-62 (8 weeks)	33,27	33,27
Additional week (up to 12 weeks)	4,38	4,38
Retired breeder	25,56	25,56
Time mated females	-	Upon Request
Female with litter (males and females)	-	Upon Request
Pregnant	-	Upon Request

Origin: Developed by C.C. Little in 1921, from a mating of Miss Abby Lathrop's stock that also gave rise to strains C57BR and C57L. To The Jackson Laboratory in 1948 from Hall. To NIH in 1951 from The Jackson Laboratory at F32. To Charles River in 1974 from NIH. Hysterectomy rederived in 1975.

Haplotype H-2^{b}.

Coat Colour: Black.

Research Application: General multipurpose model, diet-induced obesity, transgenic/knockout model development, safety and efficacy testing, immunology.

IGS Production colonies are developed from the Foundation Colony and managed according to the Charles River International Genetic Standardization programme.

SOPF **Also available with SOPF health status (Strain code: 475). Please enquire for pricing.**

Aged C57BL/6NCrl also available. Please enquire for pricing.

CBA Mice*

Strain Code: 609

Nomenclature: CBA/CaCrl

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Age in Days	Male Price - €	Female Price - €
Up to 21	23,66	23,66
21-27 (3 weeks)	26,06	26,06
28-34 (4 weeks)	28,23	28,23
35-41 (5 weeks)	30,73	30,73
42-48 (6 weeks)	35,28	35,28
49-55 (7 weeks)	37,61	37,61
56-62 (8 weeks)	42,49	42,49
Additional week	4,64	4,64
Retired breeder	-	27,80
Lactating mouse with litter	-	Upon Request
Untimed pregnant	-	Upon Request

Origin: From a cross of a Bagg albino female and a DBA male by Strong in 1920. The CBA strain was selected for a low mammary tumour incidence. Transferred via The Jackson Laboratory to Haldane and Gruneberg in 1932 To Carter (CBA/Ca) in 1947. The CBA/Ca is the substrain most commonly used in British research. VAF Plus breed stock to Charles River UK from Glaxo in 1992. Absence of lower third molars in about 18%, few skeletal variants, some mammary tumours in breeders. Do not develop antinuclear antibodies or LE cells with aging.

Histocompatibility H-1^{a}, H-2^{k}, H-3.

Coat Colour: Agouti.

Research Application: Research applications include brain development, neurochemistry and behavioural studies.

** Prices are subject to exchange rate variation.*

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JAX® Mice Strain: CBA/J

Strain Code: 624

Nomenclature: CBA/J

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	32,53	32,53
28-34 (4 weeks)	35,13	35,13
35-41 (5 weeks)	40,61	40,61
42-48 (6 weeks)	46,06	46,06
49-55 (7 weeks)	51,43	51,43
56-62 (8 weeks)	56,99	56,99
Additional week (up to 12 weeks)	4,73	4,73
Retired breeder	27,89	27,89

Origin: The breeding colony for this strain is derived from and systematically reinfused with pedigreed JAX® Mice stock obtained from The Jackson Laboratory. Charles River adheres to The Jackson Laboratory's breeding protocols and genetic quality programme to maintain this breeding colony. Mice from this colony are genetically equivalent to those bred by The Jackson Laboratory and are considered authentic JAX® Mice strains which are designated with a 'J' as the final letter in the strain nomenclature. JAX® Mice Strains are for internal research use only and should not be propagated for distribution or sale.

Coat Colour: Agouti.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/000656. For physiological strain data, see Mouse Phenome Database at jax.org/mpd-000656.

Research Application: General purpose strain, diet-induced atherosclerosis, autoimmunity research, internal/organ research, metabolism research.

The Jackson Laboratory's Genetic Stability Programme is covered by 2009 US patent 7,592,501 and 2012 US patent 8,110,721.

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JAX® Mice Strain: DBA/2J

Strain Code: 625

Nomenclature: DBA/2J

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	36,63	36,63
28-34 (4 weeks)	36,63	36,63
35-41 (5 weeks)	41,08	41,08
42-48 (6 weeks)	43,78	43,78
49-55 (7 weeks)	45,63	45,63
56-62 (8 weeks)	47,47	47,47
Additional week (up to 12 weeks)	4,92	4,92
Retired breeder	30,43	30,43

Origin: The breeding colony for this strain is derived from and systematically reinfused with pedigreed JAX® Mice stock obtained from The Jackson Laboratory. Charles River adheres to The Jackson Laboratory's breeding protocols and genetic quality programme to maintain this breeding colony. Mice from this colony are genetically equivalent to those bred by The Jackson Laboratory and are considered authentic JAX® Mice strains which are designated with a 'J' as the final letter in the strain nomenclature. JAX® Mice Strains are for internal research use only and should not be propagated for distribution or sale.

Coat colour: Non-agouti dilute brown.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/000671. For physiological strain data, see Mouse Phenome Database at jax.org/mpd-000671.

Research Application: Safety and efficacy testing, immunology, audiogenic seizures, glaucoma research.

The Jackson Laboratory's Genetic Stability Programme is covered by 2009 US patent 7,592,501 and 2012 US patent 8,110,721.

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DBA/2NCrl Mice

Strain Code: 026
Nomenclature: DBA/2NCrl

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Age in Days	Male Price - €	Female Price - €
28-34 (4 weeks)	32,94	32,94
35-41 (5 weeks)	36,90	36,90
42-48 (6 weeks)	39,28	39,28
49-55 (7 weeks)	41,06	41,06
56-62 (8 weeks)	42,64	42,64
Additional week	4,30	4,30
Retired breeder	27,43	27,43

Origin: Developed by C.C. Little in 1909 from stock segregating for coat colour. Oldest of all the inbred strains of mice. In 1929 - 1930 crosses were made between sublines, and several new sublines were established, including the widely used sublines 1 (previously called 12) and 2 (previously called 212). To Mider in 1938. To NIH in 1951 from Mider at F34. To Charles River in 1974 from NIH. Hysterectomy rederived in 1975.

Haplotype H-2^{d}.

Coat Colour: Non-agouti dilute brown.

Research Application: Safety and efficacy testing, immunology, audiogenic seizures.

FVB Mice

Strain Code: 207
Nomenclature: FVB/NCrl

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	24,02	24,02
28-34 (4 weeks)	25,78	25,78
35-41 (5 weeks)	30,08	30,08
42-48 (6 weeks)	33,67	33,67
49-55 (7 weeks)	37,17	37,17
Retired breeder	-	28,23

Origin: Derived in 1935 from an outbred Swiss colony [N.GP(S)] at NIH. During the early 1970's, established as an inbred strain called Fv1b (sensitive to the B strain of Friend leukemia) at NIH.
To Charles River from NIH in 1994. Caesarean derived in 1995.

Haplotype H-2^{q}.

Coat Colour: Albino.

Research Application: Transgenic/knockout model development.

Due to the aggressive nature of these mice, we do reserve the right to send them by original cage cohorts for animal welfare reasons.

SOPF

Also available with SOPF health status (Strain code: 508). Please enquire for pricing.

B6 albino mice

Strain Code: 709

Nomenclature: B6N-*Tyr*$^{c\text{-}Brd}$/BrdCrCrl

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Age in Days	Male Price - €	Female Price - €
28-34 (4 weeks)	45,99	45,99
35-41 (5 weeks)	47,94	47,94
42-48 (6 weeks)	50,04	50,04
49-55 (7 weeks)	54,13	54,13
56-62 (8 weeks)	58,19	58,19

Origin: Received by NCI from Dr. Allan Bradley at Baylor College of Medicine in 2000. The B6 albino strain is a spontaneous albino mutant coisogenic C57BL/6 strain. The mice contain a mutation in the tyrosinase gene, and when homozygous for the mutation the coat colour of the mice is albino rather than black. To Charles River US in 2009 from NCI. To Charles River France in 2011.

Haplotype H2^{b}.

Coat Colour: Albino.

Research Application: Creation of chimeras with B6N-derived embryonic stem cells.

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Additional Models from The Jackson Laboratory

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B6CBAF1/Crl*

Strain Code: 616
Nomenclature: B6CBAF1/Crl

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	43,42	43,42
28-34 (4 weeks)	49,60	49,60
35-41 (5 weeks)	55,47	55,47
42-48 (6 weeks)	61,73	61,73
49-55 (7 weeks)	68,40	68,40
56-62 (8 weeks)	75,62	75,62
63-69 (9 weeks)	83,58	83,58
Additional week	8,00	8,00

Origin: First generation (FI) progeny of a cross between female C57BL/6J and male CBA/CaCrl.

Coat Colour: Agouti.

Research Application: Uses include hybrid vigor, as a background for deleterious mutations, to create or enhance expression of polygenic diseases, to determine the mode of inheritance, and to provide physiological buffering (present a broader array of responses to various stresses).

** Strain is available to customers in the United Kingdom and Ireland only.*

Prices are subject to exchange rate variation.

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JAX® Mice Strain: B6CBAF1/J Mice

Strain Code: 631
Nomenclature: B6CBAF1/J

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	31,33	31,33
28-34 (4 weeks)	31,68	31,68
35-41 (5 weeks)	34,64	34,64
42-48 (6 weeks)	40,55	40,55
Additional week (up to 12 weeks)	5,07	5,07

Origin: First generation (F1) progeny of a cross between female JAX® Mice strain C57BL/6J and male JAX® Mice strain CBA/J. Both parental strains are maintained in breeding colonies derived from and systematically reinfused with pedigreed JAX® Mice stock obtained from The Jackson Laboratory. Charles River adheres to The Jackson Laboratory's breeding protocols and genetic quality programme to maintain this breeding colony. Mice from this colony are genetically equivalent to those bred by The Jackson Laboratory and are considered authentic JAX® Mice strains which are designated with a 'J' as the final letter in the strain nomenclature. JAX® Mice Strains are for internal research use only and should not be propagated for distribution or sale.

Coat Colour: Agouti.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/100011. For physiological strain data, see Mouse Phenome Database at jax.org/mpd-100011.

Research Application: Uses include hybrid vigor, as a background for deleterious mutations, to create or enhance expression of polygenic diseases, to determine the mode of inheritance, and to provide physiological buffering (present a broader array of responses to various stresses).

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B6C3F1/Crl Mice

Strain Code: 031
Nomenclature: B6C3F1/Crl

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Age in Days	Male Price - €	Female Price - €
28-34 (4 weeks)	30,74	30,74
35-41 (5 weeks)	32,21	32,21
42-48 (6 weeks)	33,61	33,61
49-55 (7 weeks)	35,05	35,05
56-62 (8 weeks)	36,45	36,45
Pregnant / time mated females	-	Upon Request
Female with litter (males and females)	-	Upon Request

Origin: Mice result from a cross between female C57BL/6NCrl and male C3H/He mice.

Coat Colour: Agouti.

Research Application: Safety and efficacy testing, transgenic/knockout model development, transplantation research.

B6D2F1/Crl Mice

Strain Code: 099
Nomenclature: B6D2F1/Crl

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	25,64	25,64
28-34 (4 weeks)	27,17	27,17
35-41 (5 weeks)	28,98	28,98
42-48 (6 weeks)	30,63	30,63
Time mated females	-	Upon Request
Female with litter (males and females)	-	Upon Request
Pregnant	-	Upon Request

Origin: Mice result from a cross between female C57BL/6NCrl and male DBA/2NCrl mice.

Coat Colour: Black.

Research Application: Safety and efficacy testing, transgenic/knockout model development, transplantation research, behavioural research.

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JAX® Mice Strain: B6D2F1/J

Strain Code: 629
Nomenclature: B6D2F1/J

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	27,10	27,10
28-34 (4 weeks)	27,38	27,38
35-41 (5 weeks)	29,41	29,41
42-48 (6 weeks)	31,80	31,80
Additional week (up to 12 weeks)	4,85	4,85

Origin: First generation (F1) progeny of a cross between female JAX® Mice strain C57BL/6J and male JAX® Mice strain DBA/2J. Both parental strains are maintained in breeding colonies derived from and systematically reinfused with pedigreed JAX® Mice stock obtained from The Jackson Laboratory. Charles River adheres to The Jackson Laboratory's breeding protocols and genetic quality programme to maintain this breeding colony. Mice from this colony are genetically equivalent to those bred by The Jackson Laboratory and are considered authentic JAX® Mice strains which are designated with a 'J' as the final letter in the strain nomenclature. JAX® Mice Strains are for internal research use only and should not be propagated for distribution or sale.

Coat Colour: Black.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/100006. For physiological strain data, see Mouse Phenome Database at jax.org/mpd-100006.

Research Application: Safety and efficacy testing, transgenic/knockout model development, transplantation research, behavioural research.

CD2F1/Crl Mice

Strain Code: 033
Nomenclature: CD2F1/Crl

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Weight in Grams	Male Price - €	Female Price - €
10-12	32,07	32,07
12-14	35,06	35,06
14-16	38,30	38,30
16-18	41,06	41,06
18-20	43,95	43,95
20-22	46,68	46,68
Additional week	5,24	5,24

Origin: First generation (F1) progeny of a cross between female BALB/cAnNCrl x male DBA/2NCrl.

Coat Colour: Brown agouti.

Research Application: Safety and efficacy testing, transplantation research, monoclonal antibody production.

Other Hybrid Mice Available from Charles River

NMRCF1/Crl

Strain Code: 636
Nomenclature: NMRCF1/Crl

CB6F1/Crl

Strain Code: 176
Nomenclature: CB6F1/Crl.
Research Application: Transplantation research, monoclonal antibody production.

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JAX® Mice Strain: K18-hACE2

Strain Code: 704

Nomenclature: B6.Cg-Tg(K18-ACE2)2Prlmn/J

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Commercial organisations require a license prior to shipping. Please contact your local Charles River office for further information. The commercial license fee is included in the pricing below.

	Academic and Non-Profit	Commercial Organisations
	MALE / FEMALE Hemizygous for Tg(K18-ACE2)2Prlmn	MALE / FEMALE Hemizygous for Tg(K18-ACE2)2Prlmn
Age in Days	Price - €	Price - €
21-27 (3 weeks)	106,24	173,12
28-34 (4 weeks)	106,24	173,12
35-41 (5 weeks)	106,24	173,12
42-48 (6 weeks)	106,24	173,12
49-55 (7 weeks)	106,24	173,12
56-62 (8 weeks)	106,24	173,12

Description: K18-hACE2 transgenic mice express human ACE2, the receptor used by the severe acute respiratory syndrome coronavirus (SARS-CoV) to gain entry to cells. Expression is driven in epithelia by a human keratin 18 (KRT18) promoter. Most importantly, expression is observed in airway epithelial cells where infections typically begin. This model of lethal infection with SARS-CoV mimics the human disease and should be useful for studies of pathogenesis and for the development of antiviral therapies for SARS. Recent research indicates that this line may also be useful in studies related to the study of 2019 novel coronavirus (SARS-CoV-2) pathogenesis and the disease outbreak COVID-19.

Coat Colour: Black.

Control: Noncarrier or C57BL6/J.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/034860.

Research Applications: Internal/organ research, virology, research tools, developmental biology, immunology, inflammation and autoimmunity research.

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JAX® Mice Strain: Obese Mice ob/ob

Strain Code: 606

Nomenclature: B6.Cg-*Lep*^{ob}/J

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Age in Days	Male Price - €	Female Price - €
42-48 (6 weeks)	280,26	280,26
49-55 (7 weeks)	287,47	287,47
56-62 (8 weeks)	296,23	296,23
Additional week	13,69	13,69

Origin: The breeding colony for this strain is derived from and systematically reinfused with pedigreed JAX® Mice stock obtained from The Jackson Laboratory. Charles River adheres to The Jackson Laboratory's breeding protocols and genetic quality programme to maintain this breeding colony. Mice from this colony are genetically equivalent to those bred by The Jackson Laboratory and are considered authentic JAX® Mice strains which are designated with a 'J' as the final letter in the strain nomenclature. JAX® Mice Strains are for internal research use only and should not be propagated for distribution or sale.

Coat Colour: Black.

Control: Heterozygote or wildtype from the colony or C57BL/6J.

Diet: 5K20 or equivalent.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/000632. For physiological strain data, see Mouse Phenome Database at jax.org/mpd-000632.

Research Application: Phase I and II type 2 diabetes, obesity research, wound healing.

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JAX® Mice Strain: Diabetic Mice db/db

Strain Code: 607

Nomenclature: BKS.Cg-*Dock7*^{m}+/+*Lepr*^{db}/J

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Age in Days	Male Price - €	Female Price - €
35-41 (5 weeks)	242,38	242,38
42-48 (6 weeks)	250,32	250,32
49-55 (7 weeks)	257,70	257,70
56-62 (8 weeks)	265,49	265,49
Additional week	13,69	13,69

Origin: The breeding colony for this strain is derived from and systematically reinfused with pedigreed JAX® Mice stock obtained from The Jackson Laboratory. Charles River adheres to The Jackson Laboratory's breeding protocols and genetic quality programme to maintain this breeding colony.
Mice from this colony are genetically equivalent to those bred by The Jackson Laboratory and are considered authentic JAX® Mice strains which are designated with a 'J' as the final letter in the strain nomenclature. JAX® Mice Strains are for internal research use only and should not be propagated for distribution or sale.

Coat Colour: Varies by genotype.

Coat colour	Misty gene	Leptin Receptor gene	Phenotype
Grey	m/m	+/+ (wildtype)	lean, nondiabetic
Black	m/+	db / +	lean, nondiabetic
Black	+/+	db / db	fatty and diabetic

Control: Heterozygote from the colony, JAX® Mice Stock Number 000662 C57BLKS/J or Dock7^{m} +/Dock7^{m} + from the colony.

Diet: 5K52 or equivalent.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/000642. For physiological strain data, see Mouse Phenome Database at jax.org/mpd-000642.

Research Application: Phase I, II, and III type 2 diabetes, obesity research, wound healing.

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JAX® Mice Strain: ApoE Mice

Strain Code: 622

Nomenclature: B6.129P2-*Apoe*^{tm1Unc}/J

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Age in Days	Male Price - €	Female Price - €
28-34 (4 weeks)	308,12	308,12
35-41 (5 weeks)	315,45	315,45
42-48 (6 weeks)	322,46	322,46
49-55 (7 weeks)	330,12	330,12
56-62 (8 weeks)	337,42	337,42
Additional week	14,04	14,04

Origin: The breeding colony for this strain is derived from and systematically reinfused with pedigreed JAX® Mice stock obtained from The Jackson Laboratory. Charles River adheres to The Jackson Laboratory's breeding protocols and genetic quality programme to maintain this breeding colony.
Mice from this colony are genetically equivalent to those bred by The Jackson Laboratory and are considered authentic JAX® Mice strains which are designated with a 'J' as the final letter in the strain nomenclature. JAX® Mice Strains are for internal research use only and should not be propagated for distribution or sale.

Coat Colour: Black.

Control: JAX® Mice Strain: C57BL/6J.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/002052. For physiological strain data, see Mouse Phenome Database at jax.org/mpd-002052.

Research Application: Cardiovascular research (atherosclerosis, heart abnormalities, hypercholesterolemia, hypertriglyceridemia, vascular defects).

The Jackson Laboratory's Genetic Stability Programme is covered by 2009 US patent 7,592,501 and 2012 US patent 8,110,721.

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JAX® Mice Strain: NOD Mice

Strain Code: 613

Nomenclature: NOD/ShiLtJ

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Age in Days	Male Price - €	Female Price - €
28-34 (4 weeks)	131,11	131,11
35-41 (5 weeks)	147,41	147,41
42-48 (6 weeks)	166,91	166,91
49-55 (7 weeks)	183,20	183,20
56-62 (8 weeks)	199,15	199,15
Additional week	17,23	17,23

Origin: The breeding colony for this strain is derived from and systematically reinfused with pedigreed JAX® Mice stock obtained from The Jackson Laboratory. Charles River adheres to The Jackson Laboratory's breeding protocols and genetic quality programme to maintain this breeding colony.
Mice from this colony are genetically equivalent to those bred by The Jackson Laboratory and are considered authentic JAX® Mice strains which are designated with a 'J' as the final letter in the strain nomenclature. JAX® Mice Strains are for internal research use only and should not be propagated for distribution or sale.

Coat Colour: Albino.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/001976. For physiological strain data, see Mouse Phenome Database at jax.org/mpd-001976.

Research Application: Polygenic model for autoimmune type 1 diabetes.

The Jackson Laboratory's Genetic Stability Programme is covered by 2009 US patent 7,592,501 and 2012 US patent 8,110,721.

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Additional Models Available from The Jackson Laboratory

Many additional mouse models supporting metabolic and cardiovascular disease research are available from The Jackson Laboratory and may be obtained by importation through Charles River. Charles River serves as the exclusive European commercial distributor of The Jackson Laboratory's JAX® Mice strains.

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Ly5.1 Mice

Strain Code: 494

Nomenclature: B6.SJL-*Ptprc*^{a} *Pepc*^{b}/BoyCrl

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Age in Days	Male Price - €	Female Price - €
28-34 (4 weeks)	141,36	141,36
Additional Week	6,98	6,98

Origin: The strain was originally developed at the Sloan Kettering Institute where it was backcrossed on a non-specified C57BL/6 strain. The congenic strain "C57BL/6-Ly5.1" carries the allele of the SJL mouse in the Ptprc gene locus: "Ptprc^{a}" or "CD45.1" or "Ly5.1". Charles River Europe breeds CD45.1 expressing B6.SJL-Ptprc^{a} Pepcb/BoyCrl mice in Italy.

Coat Colour: Black.

Research Application: This mouse is primarily used in inflammation and immunological adoptive transfer research.

SOPF

Also available with SOPF health status. Please enquire for pricing.

OT I

Strain Code: 642

Nomenclature: C57BL/6-Tg(TcraTcrb)1100Mjb/Crl

+ Learn more

Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	259,39	259,39
28-34 (4 weeks)	259,39	259,39
Additional Week	8,70	8,70

Origin: From the Walter and Eliza Hall Institute, Victoria, Australia, to Charles River France in 2002. These homozygous mice contain transgenic inserts for mouse Tcra-V2 and Tcrb-V5 genes. The transgenic T cell receptor was designed to recognise ovalbumin residues 257-264 in the context of H2Kb and used to study the role of peptides in positive selection and the response of CD8+ T cells to antigen. Like most TCR transgenics, these mice are somewhat immunodeficient.

Coat Colour: Black.

Research Application: Immunology, inflammation and autoimmunity research.

SOPF health status.

OT II

Strain Code: 643

Nomenclature: C57BL/6-Tg(TcraTcrb)425Cbn/Crl

+ Learn more

Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	259,39	259,39
28-34 (4 weeks)	259,39	259,39
Additional Week	8,70	8,70

Origin: From the Walter and Eliza Hall Institute, Victoria, Australia, to Charles River France in 2002. These homozygous transgenic mice express the mouse alpha-chain and beta-chain T cell receptor that pairs with the CD4 coreceptor and is specific for chicken ovalbumin 323-339 in the context of I-A b. Homozygous mice are viable and fertile. In these mice there is a four-fold increase in the CD4 to CD8 peripheral T cell ratio, and lymph node T cells demonstrate a dose-dependent proliferative response to the specific ovalbumin ligand. These transgenic mice are useful for studying *in vivo* T cell biology such as TCR-ligand interactions, T cell activation, thymic selection, cross-presentation of antigens, process of thymic selection and central and peripheral T cell tolerance and induction.

Coat Colour: Black.

Research Application: T cell biology research (e.g., TCR-ligand interactions, T cell activation, thymic selection, cross-presentation of antigens, process of thymic selection and central and peripheral T cell tolerance and induction).

SOPF health status.

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Additional Models Available from The Jackson Laboratory

Many additional inflammation and immunology mouse models are available from The Jackson Laboratory and may be obtained by importation through Charles River. Charles River serves as the exclusive European commercial distributor of The Jackson Laboratory's JAX® Mice strains.

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Immunodeficient Models

+ Mouse Models Heath Profiles

+ Rat Models Heath Profiles

+ Learn more

Like You, We Believe There's a Cure

Charles River's global portfolio of high-quality immunodeficient models gives you the benefit of partnering with an industry leader offering an infrastructure capable of advancing your research both now and in the future.

+80%

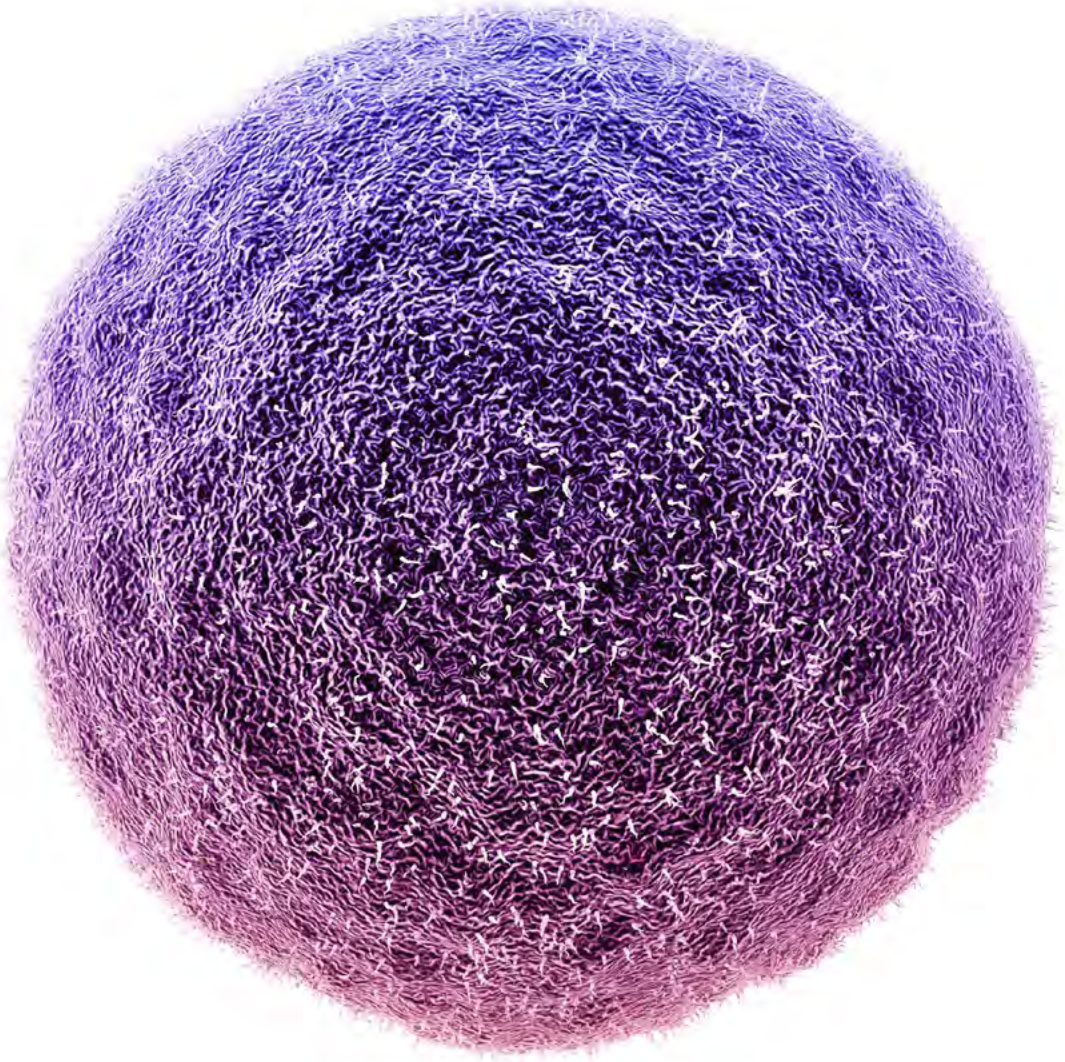
Percentage of FDA-approved cancer therapies in the last five years were developed with Charles River

86

Oncology patents co-invented by our scientists

19

Oncology candidates delivered to our partners



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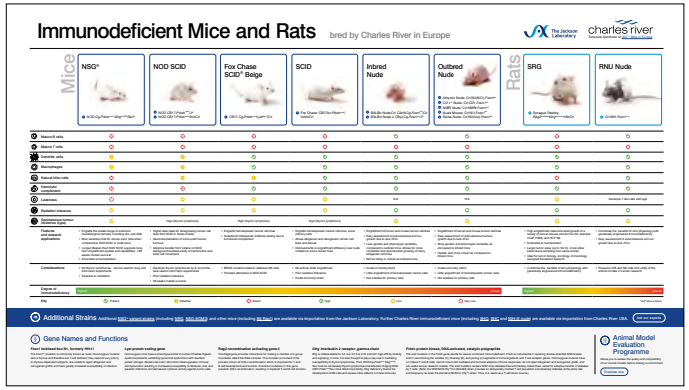
Tools to help find the right Oncology Model

Immunodeficient Rodents Models Poster



Download a complimentary poster listing the major phenotypes of the immunodeficient range of JAX® and Charles River mice and rats bred in Europe. This poster includes information on model features, degree of immunodeficiency, and gene functions.

Cancer Model Database

Using our cancer model database, you can create a more targeted study design from the start by selecting the most appropriate tumour model for your preclinical programme. By searching for specific histology or molecular properties, our cancer model database can help you select the most relevant model for your research needs.

Xenograft Data

We have compiled xenograft data on certain immunodeficient models to assist in expediting the model selection process.

Athymic Nude Mice

Strain Code: 490 (Homozygous)
491 (Heterozygous)
Nomenclature: Crl:NU(NCr)-*Foxn1*^{nu}

+ Learn more

Age in Days	Male Price - €	Female Price - €
Homozygous nu/nu		
28-34 (4 weeks)	64,05	64,05
35-41 (5 weeks)	-	71,45
42-48 (6 weeks)	-	76,37
49-55 (7 weeks)	-	81,31
56-62 (8 weeks)	-	86,24
Additional week (up to 12 weeks)	-	Upon Request
Heterozygous nu/+ 4 weeks	Upon Request	Upon Request

Origin: This immunodeficient nude mouse originated from NIH and was originally thought to be a BALB/c congenic. It was later determined that it was not inbred and is therefore maintained as an outbred. It is not associated with any stock or strain. The animal lacks a thymus, is unable to produce T cells, and is therefore immunodeficient. To Charles River from NCI in 2010.

Coat Colour: Hairless, albino background.

Research Applications: Tumor biology and xenograft research.

CD-1® Nude

Strain Code: 086 (Homozygous)
087 (Heterozygous)
Nomenclature: Crl:CD1-*Foxn1*^{nu}

+ Learn more

Age in Days	Male Price - €	Female Price - €
Homozygous nu/nu		
28-34 (4 weeks)	86,71	86,71
35-41 (5 weeks)	97,85	97,85
42-48 (6 weeks)	107,52	107,52
49-55 (7 weeks)	117,17	117,17
56-62 (8 weeks)	126,84	126,84
Additional week (up to 12 weeks)	6,57	6,57
Heterozygous nu/+ 4 weeks	44,54	44,54

Origin: Developed from the transfer of the nude gene to a CD-1® mouse through a series of crosses and back-crosses, beginning in 1979 at Charles River, Wilmington, MA. The animal does not have a thymus and is therefore unable to produce T-cells and is consequently immunodeficient.

Coat Colour: Homozygotes: hairless, unpigmented. Heterozygotes: haired, albino.

Research Applications: Tumor biology and xenograft research.

Swiss Nude

Strain Code: 620 (Homozygous)
664 (Heterozygous)
Nomenclature: Crl:NU(Ico)-*Foxn1*^{nu}

+ Learn more

Age in Days	Male Price - €	Female Price - €
Homozygous nu/nu		
21-27 (3 weeks)	86,71	86,71
28-34 (4 weeks)	86,71	86,71
35-41 (5 weeks)	97,85	97,85
42-48 (6 weeks)	107,52	107,52
49-55 (7 weeks)	117,17	117,17
56-62 (8 weeks)	126,84	126,84
Additional week (up to 12 weeks)	6,57	6,57
Heterozygous nu/+ 4 weeks	44,54	44,54

Origin: The mutation ocurred in 1962, in a colony of albino outbred mice maintained at the Ruchill Hospital in Glasgow. In 1966, Flanagan gave the first detailed description of this mutant. It was not until 1968, however, that it was first noticed that the thymus was missing (Pantelouris EM). These nude mice originate from the Swiss strain. In 1974, The Gustave Roussy Institute (Villejuif, France) obtained the mice from Dr Carl Hansen's department at the NIH, Bethesda, MD, USA. The first pairs were introduced into Charles River France in 1976.

Coat Colour: Homozygotes: hairless, unpigmented. Heterozygotes: haired, albino.

Research Applications: Tumor biology and xenograft research.

NMRI Nude

Strain Code: 639 (Homozygous)
663 (Heterozygous)
Nomenclature: Crl:NMRI-*Foxn1*^{nu}

+ Learn more

Age in Days	Male Price - €	Female Price - €
Homozygous nu/nu		
28-34 (4 weeks)	86,71	86,71
35-41 (5 weeks)	97,85	97,85
42-48 (6 weeks)	107,52	107,52
49-55 (7 weeks)	117,17	117,17
56-62 (8 weeks)	126,84	126,84
Heterozygous nu/+ 4 weeks	44,54	44,54

Origin: The first nude mouse appeared at the Virus Laboratory, Ruchill Hospital in Glasgow in 1962 in Dr. N.R. Grist's laboratory. Dr. Grist sent the mutation to Edinburgh for investigation. The mutation arose in a closed but not deliberately inbred albino stock. The genetics of the mutant nude mouse was studied at the institute of Animal Genetics Edinburgh. Absence of thymus was described by Pantelouris (1968). In December 1968, Dr. Rygaard obtained two heterozygous pairs (nu/+) from the Institute for Animal Genetics in Edinburgh, Scotland. Due to poor viability and fertility of the nude mice obtained from Glasgow, Dr. Rygaard decided to transfer the gene to another genetic background. He chose the NMRI outbred strain as the background and soon had a very productive breeding system.

Coat Colour: Hairless, albino background.

Research Applications: Oncology.

BALB/c-Nude Mice

Age in Days	Male Price - €	Female Price - €
Homozygous nu/nu		
21-27 (3 weeks)	159,96	159,96
28-34 (4 weeks)	159,96	159,96
35-41 (5 weeks)	165,59	165,59
42-48 (6 weeks)	174,79	174,79
49-55 (7 weeks)	181,75	181,75
56-62 (8 weeks)	187,03	187,03
Additional week (up to 12 weeks)	8,09	8,09
Heterozygous nu/+ 4 weeks	97,91	97,91

BALB/c Nude N

Strain Code: 194 (Homozygous), 195 (Heterozygous)
Nomenclature: CAnN.Cg-*Foxn1*^{nu}/Crl

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Origin: Developed through crosses and backcrosses between BALB/cABom-nu and BALB/cAnNCrj-nu at Charles River Japan (CRJ). Pedigreed pregnant females of BALB/cAnNCrj-nu were received from CRJ in 1985. This mouse is inbred, and genetic monitoring results confirm it to be a BALB/c nude.
It also lacks a thymus and is therefore T-cell deficient.

Coat Colour: Homozygotes: hairless, unpigmented. Heterozygotes: haired, albino.

Breeding Location: Germany, USA, UK.

BALB/c Nude J

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Strain Code: 633 (Homozygous), 657 (Heterozygous)
Nomenclature: JAX® Mice Strain: CByJ.Cg-*Foxn1*^{nu}/J

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Origin: The breeding colony for this strain is derived from and systematically reinfused with pedigreed JAX® Mice stock obtained from The Jackson Laboratory. Charles River adheres to The Jackson Laboratory's breeding protocols and genetic quality programme to maintain this breeding colony. Mice from this colony are genetically equivalent to those bred by The Jackson Laboratory and are considered authentic JAX® Mice strains which are designated with a 'J' as the final letter in the strain nomenclature. JAX® Mice Strains are for internal research use only and should not be propagated for distribution or sale.

Coat Colour: Homozygotes: hairless, unpigmented. Heterozygotes: haired, albino.

Breeding Location: France.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/000711.

Research Applications: Tumor biology and xenograft research.

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SCID Mice

Strain Code: 236
Nomenclature: CB17/Icr-*Prkdc*^{scid}/IcrIcoCrl

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	123,70	123,70
28-34 (4 weeks)	123,70	123,70
35-41 (5 weeks)	127,40	127,40
42-48 (6 weeks)	131,23	131,23
49-55 (7 weeks)	135,76	135,76
56-62 (8 weeks)	141,61	141,61
Additional week (up to 10 weeks)	7,33	7,33

Origin: The scid autosomal recessive mutation, was detected in 1980 by MJ Bosma and his group in an inbred strain (C.BKa-Ighb/Icr also known as C.B-17) of specific pathogen free mice at the Fox Chase Cancer Center, Philadelphia, PA, USA. Mice homozygous for the scid mutation, hereafter designated SCID mice, were established as a coisogenic partner strain of the normal C.B-17 strain. In 1989, Charles River France obtained SCID mice under licence from FCCC.

Coat Colour: Albino.

Research Applications: Tumor biology and xenograft research.

NOD *SCID* Mice*

Strain Code: 394

Nomenclature: NOD.CB17-*Prkdc*^{scid}/NCrCrl

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Age in Days	Male Price - €	Female Price - €
28-34 (4 weeks)	153,89	153,89
35-41 (5 weeks)	161,35	161,35
42-48 (6 weeks)	166,30	166,30
49-55 (7 weeks)	171,54	171,54
56-62 (8 weeks)	177,53	177,53
63-69 (9 weeks)	185,14	185,14
Additional week	5,54	5,54

Origin: The SCID mutation has been transferred onto a non-obese diabetic background. Animals homozygous for the SCID mutation have impaired T and B cell lymphocyte development. The NOD background additionally results in deficient natural killer(NK)cell function. To Charles River in 2003 from NIH. To Charles River UK in 2009.

Coat Colour: Albino.

Research Applications: Tumor biology and xenograft research.

**Prices are subject to exchange rate variation.*

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JAX® Mice Strain: NOD *SCID**

Strain Code: 634

Nomenclature: NOD.Cg-*Prkdc*^{scid} /J

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	209,97	209,97
28-34 (4 weeks)	209,97	209,97
35-41 (5 weeks)	209,97	209,97
42-48 (6 weeks)	217,66	217,66
49-55 (7 weeks)	225,13	225,13
56-62 (8 weeks)	232,86	232,86
63-69 (9 weeks)	240,15	240,15

Origin: The breeding colony for this strain is derived from and systematically reinfused with pedigreed JAX® Mice stock obtained from The Jackson Laboratory. Charles River adheres to The Jackson Laboratory's breeding protocols and genetic quality programme to maintain this breeding colony.
Mice from this colony are genetically equivalent to those bred by The Jackson Laboratory and are considered authentic JAX® Mice strains which are designated with a 'J' as the final letter in the strain nomenclature. JAX® Mice Strains are for internal research use only and should not be propagated for distribution or sale.

Coat Colour: Albino.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/001303. For physiological strain data, see Mouse Phenome Database at jax.org/mpd-001303.

Research Applications: Tumor biology and xenograft research.

The Jackson Laboratory's Genetic Stability Programme is covered by 2009 US patent 7,592,501 and 2012 US patent 8,110,721.

SCID Beige

Strain Code: 250

Nomenclature: CB17.Cg-*Prkdc*^{scid}*Lyst*$^{bg\text{-}J}$/Crl

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Age in Days	Male Price - €	Female Price - €
28-34 (4 weeks)	138,82	138,82
35-41 (5 weeks)	142,99	142,99
42-48 (6 weeks)	147,28	147,28
49-55 (7 weeks)	152,37	152,37
56-62 (8 weeks)	158,93	158,93

Origin: A congenic mouse that possesses both genetic autosomal recessive mutations SCID and beige. This mouse was developed by Croy, et al. at the University of Guelph by an intercross of C.B-17 SCID/SCID to C57BL/6 bg/bg mice. To Charles River USA in 1993 and to Charles River Germany in 2007. To Charles River UK in 2015.

Coat Colour: Albino.

Research Applications: Tumor biology and xenograft research.

NCG Mice

Strain Code: 572

Nomenclature: NOD-*Prkdc*^{em26Cd52}*Il2rg*^{em26Cd22}/NjuCrl

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Purchases of NCG Mice by companies or for-profit entities are subject to commercial pricing. Please contact your local Charles River office for further information or assistance.

Age in Days	Male Price - €	Female Price - €
21-41 (3-5 weeks)	211,41	211,41
42-48 (6 weeks)	222,26	222,26
49-55 (7 weeks)	233,11	233,11
56-62 (8 weeks)	242,12	242,12
63-69 (9 weeks)	252,98	252,98
70-76 (10 weeks)	263,81	263,81
77-83 (11 weeks)	Upon request	Upon request
84-90 (12 weeks)	Upon request	Upon request

Origin: Co-developed by Nanjing Biomedical Research Institute of Nanjing University and Nanjing Galaxy Biopharma in 2014 and transferred to Charles River in 2016. The NCG mouse model was created by sequential CRISPR-Cas9 editing of the Prkdc and Il2rg loci in the NOD/Nju mouse, generating a mouse coisogenic to the NOD/Nju.

The NOD/Nju carries a mutation in the Sirpa (SIRP α) gene that allows for engrafting of foreign hematopoietic stem cells. The Prkdc knockout generates a SCID-like phenotype lacking proper T-cell and B-cell formation. The knockout of the Il2rg gene further exacerbates the SCID-like phenotype while additionally resulting in a decrease of NK cell production.

Coat Colour: Albino

Research Applications: Oncology, immunology, infectious disease, graft vs. host disease, diabetes, regenerative medicine and human organ transplantation

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JAX® Mice strain: NOD *SCID* gamma (NSG®) Mice

Strain Code: 614

Nomenclature: NOD.Cg-*Prkdc*^{scid} *Il2rg*^{tm1Wjl}/SzJ

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Use of NSG® Mice by companies or for-profit entities requires a JAX® Leap License prior to shipping. This includes mice shipped as part of our Animal Model Evaluation Programme. Purchases of NSG® Mice by companies or for-profit entities are subject to commercial pricing. Please contact your local Charles River office for further information or assistance.

Age in Days	Male Price - €	Female Price - €
21-41 (3-5 weeks)	248,71	248,71
42-48 (6 weeks)	261,48	261,48
49-55 (7 weeks)	274,24	274,24
56-62 (8 weeks)	284,85	284,85
63-69 (9 weeks)	297,63	297,63
70-76 (10 weeks)	310,37	310,37

Origin: The breeding colony for this strain is derived from and systematically reinfused with pedigreed JAX® Mice stock obtained from The Jackson Laboratory. Charles River adheres to The Jackson Laboratory's breeding protocols and genetic quality programme to maintain this breeding colony.
Mice from this colony are genetically equivalent to those bred by The Jackson Laboratory and are considered authentic JAX® Mice strains which are designated with a 'J' as the final letter in the strain nomenclature.
JAX® Mice Strains are for internal research use only and should not be propagated for distribution or sale.

Coat Colour: Albino.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/005557. For physiological strain data, see Mouse Phenome Database at jax.org/mpd-005557.

Research Applications: Oncology, immunology, virology research, xenograft/transplant host (outstanding utility in the studies of islet transplantation, hematopoietic stem cells and cancer stem cells).

The Jackson Laboratory's Genetic Stability Programme is covered by 2009 US patent 7,592,501 and 2012 US patent 8,110,721.

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JAX® Mice strain: NSG-MHC I/II DKO Mice

Strain Code: 718

Nomenclature: NOD.Cg-*Prkdc*^{scid} *H2-K1*$^{b-tm1Bpe}$ *H2-Ab1*$^{g7-em1Mvw}$ *H2-D1*$^{b-tm1Bpe}$ *Il2rg*^{tm1Wjl}/SzJ

+ Learn more

Use of NSG-MHC I/II DKO Mice by companies or for-profit entities requires a JAX® Leap License prior to shipping. This includes mice shipped as part of our Animal Model Evaluation Programme. Purchases of NSG-MHC I/II DKO Mice by companies or for-profit entities are subject to commercial pricing. Please contact your local Charles River office for further information or assistance.

Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	259,93	287,34
28-34 (4 weeks)	272,03	300,85
35 -41 (5 weeks)	295,83	327,40
42-48 (6 weeks)	319,81	352,82
49-55 (7 weeks)	334,16	367,47
56-62 (8 weeks)	348,65	382,21
63-69 (9 weeks)	352,04	384,57
70-76 (10 weeks)	355,42	389,59

Origin: The breeding colony for this strain is derived from and systematically reinfused with pedigreed JAX® Mice stock obtained from The Jackson Laboratory. Charles River adheres to The Jackson Laboratory's breeding protocols and genetic quality programme to maintain this breeding colony.
Mice from this colony are genetically equivalent to those bred by The Jackson Laboratory and are considered authentic JAX® Mice strains which are designated with a 'J' as the final letter in the strain nomenclature. JAX® Mice Strains are for internal research use only and should not be propagated for distribution or sale.

Coat Colour: Albino.

Strain Characteristics: For comprehensive strain information, see the strain data sheet at jax.org/strain/025216.

Research Applications: Oncology, immunology, xenograft/transplant host, humanised mouse studies (outstanding utility in the study of graft-versus-host disease. These mice exhibit a significantly delayed onset of xenogeneic GvHD compared to NSG® mice).

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SRG Rats

Strain Code: 707

Nomenclature: Sprague Dawley-Rag2^{em2hera}*Il2rg*^{em1hera}/HblCrl

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Age in Days	Male Price - €	Female Price - €
21-27 (3 weeks)	596,93	596,93
28-34 (4 weeks)	622,62	622,62
35-41 (5 weeks)	648,33	648,33
42-48 (6 weeks)	674,03	674,03
49-55 (7 weeks)	699,75	699,75
56-62 (8 weeks)	725,45	725,45
63-69 (9 weeks)	751,16	751,16
70-76 (10 weeks)	776,85	776,85
77-83 (11 weeks)	802,57	802,57
84-90 (12 weeks)	828,26	828,26
91-97 (13 weeks)	853,98	853,98
98-104 (14 weeks)	879,67	879,67

Origin: The SRG rat was transferred from Transposagen to Hera Biolabs in 2016. To Charles River from Hera Biolabs in 2021.

Coat Colour: White.

Research Applications: Tumor biology, oncology, immunology, xenograft transplant research

Nude Rats

Strain Code: 316 (Homozygous)
118 (Heterozygous)

Nomenclature: Crl:NIH-*Foxn1*^{rnu}

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Age in Days	Male Price - €	Female Price - €
28-34 (4 weeks)	202,65	202,65
35-41 (5 weeks)	236,83	236,83
42-48 (6 weeks)	270,92	270,92
49-55 (7 weeks)	309,71	309,71
Additional week	32,10	32,10

Origin: The NIH nude rat was developed in 1979/80 through a series of matings involving 8 inbred rat strains. To Charles River USA from the NIH Animal Genetic Resources. Caesarian derived in 2001. This athymic model shows depleted cell populations in thymus-dependant areas of peripheral lymphoid organs.

Coat Colour: Homozygotes: White, black or black and white, hairless. Heterozygotes: White, black or black and white, haired.

Research Applications: Tumor biology, immunology, and xenograft research.

Other Immunodeficient Models Available from Charles River

NIH-III Mouse

Strain Code: 201 (Homozygous)
202 (Heterozygous)
Nomenclature: Crl:NIH-*Lyst*$^{bg\text{-}J}$ *Foxn1*^{nu} *Btk*^{xid}
Research Applications: Tumor biology and xenograft research.

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Nude Mouse

Strain Code: 088 (Homozygous)
089 (Heterozygous)
Nomenclature: Crl:NU-*Foxn1*^{nu}
Research Applications: Tumor biology and xenograft research.

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SCID Hairless Outbred Mice (SHO®)

Strain Code: 474
Nomenclature: Crl:SHO-*Prkdc*^{scid}*Hr*^{hr}
Research Applications: Tumor biology and xenograft research.

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Dedicated Supply of JAX® Mice

As a result of the collaborative agreement between The Jackson Laboratory and Charles River, Charles River's European facilities are able to offer you dedicated supplies of certain JAX® Mice strains that are typically only available as imported strains or recovered embryos.

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Rabbit, Guinea Pig, Gerbil, and Hamster Models

New Zealand White - Rabbits

Strain Code: 052
Nomenclature: Crl:KBL(NZW)

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Age in Days	Male Price - €	Female Price - €
35-41 (5 weeks)	264,03	264,03
42-48 (6 weeks)	280,23	280,23
49-55 (7 weeks)	334,99	334,99
56-62 (8 weeks)	390,82	390,82
63-69 (9 weeks)	419,39	419,39
70-76 (10 weeks)	432,72	432,72
77-83 (11 weeks)	444,17	444,17
84-90 (12 weeks)	451,80	451,80
91-97 (13 weeks)	-	482,36
98-104 (14 weeks)	-	505,68
105-111 (15 weeks)	-	533,78
112-118 (16 weeks)	-	568,05
119-125 (17 weeks)	-	683,24
126-132 (18 weeks)	-	710,81
133-139 (19 weeks)	-	738,34
Time mated females	-	Upon Request
Social pair (up to 12 weeks)	-	Upon Request

Origin: To Charles River Canada in 1991 from Kitayama Breeding Laboratories, Japan. To Charles River France in 1999.

Coat Colour: Albino.

Research Application: General multipurpose model.

Custom breeding of GM rabbits, immunisation and genealogical data available on request. Please consult us.

Chinchilla Bastard - Rabbits

Strain Code: 602
Nomenclature: Crl:Crlg(CHB)

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Age in Days	Male Price - €	Female Price - €
35-41 (5 weeks)	552,07	552,07
42-48 (6 weeks)	552,07	552,07
49-55 (7 weeks)	604,48	604,48
56-62 (8 weeks)	694,30	694,30
63-69 (9 weeks)	694,30	694,30
70-76 (10 weeks)	694,30	694,30
77-83 (11 weeks)	694,30	694,30
84-90 (12 weeks)	784,54	784,54
91-97 (13 weeks)	824,25	824,25

Origin: Pure Chinchilla stock obtained by Charles River Germany from Boehringer Ingelheim Biberach in 1977. Intercross between Chinchilla pigmented males and KBL albino females.

Coat Colour: Grey-black.

Research Application: Ophthalmology.

Charles River France breeds Chinchilla Bastard rabbits (progeny of CHB-KBL crossing) thanks to revitalisation of cryopreserved Chinchilla sperm. Chinchilla Bastard rabbits have pigmented eyes. Please contact your local customer service department for an estimated lead time for orders.

Charles River Rabbits Handling Programme

Charles River has designed a programme to socialise New Zealand white and Chinchilla Bastard rabbits, reduce stress, and optimise how they interact with handlers upon arrival at customer facility.

Dunkin Hartley - Guinea Pigs

Strain Code: 051
Nomenclature: Crl:HA

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Weight in Grams	Male Price - €	Female Price - €
≥ 200	126,46	126,46
201-250	137,62	137,62
251-300	153,13	153,13
301-350	166,17	166,17
351-400	179,83	179,83
>400	Upon Request	Upon Request

Origin: To Charles River in 1968 from Medical Research Council, Mill Hill. Caesarian derived in 1969.

Coat Colour: Albino.

Research Application: General multipurpose model, surgical model.

Syrian Hamsters

Strain Code: 049
Nomenclature: Crl:LVG(SYR)

+ Learn more

Research Application: SARS-CoV-2, carcinogenicity, behavioural studies, toxicity, infectious disease, general multipurpose model

Limited availability, upon reservation from Charles River USA.

Gerbils

Strain Code: 243
Nomenclature: Crl:MON(Tum)

+ Learn more

Age in Days	Male Price - €	Female Price - €
35-41 (5 weeks)	142,78	142,78
42-48 (6 weeks)	146,21	146,21
49-55 (7 weeks)	161,90	161,90
56-62 (8 weeks)	Upon Request	Upon Request

Origin: The stock was obtained from Tumblebrook Farms in 1995. Rederived in 1996.

Coat Colour: Predominantly agouti with some black.

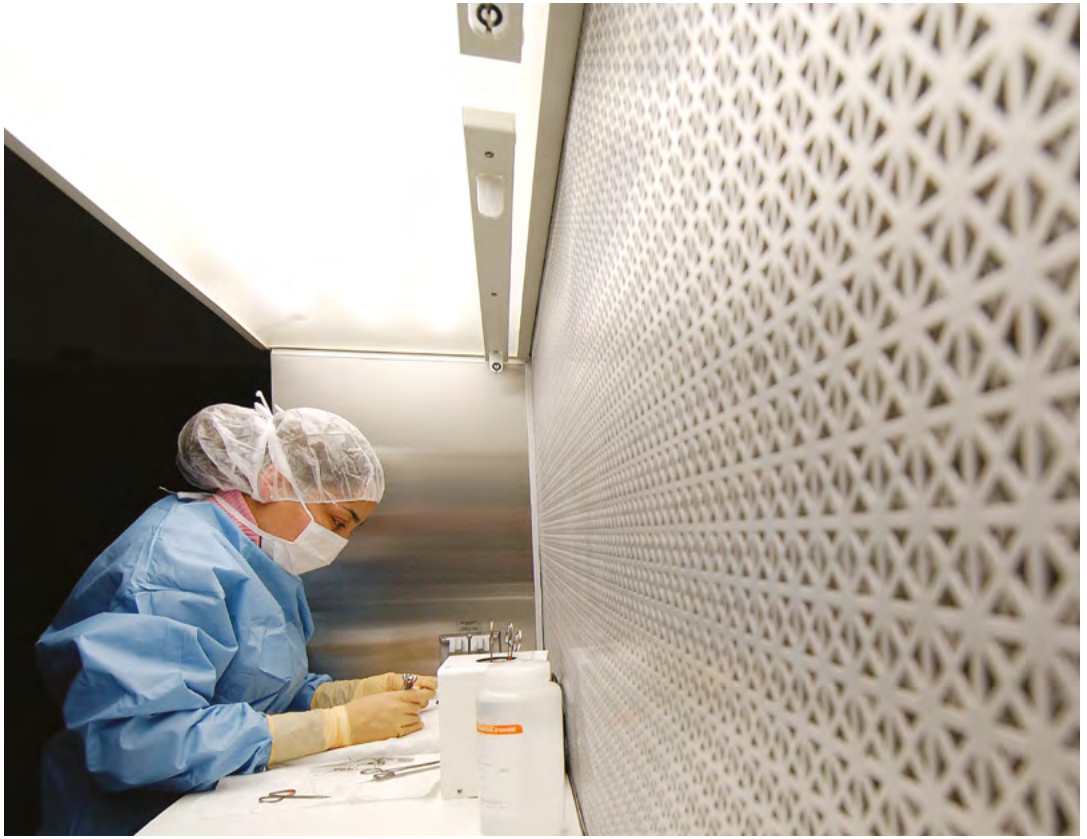
Research Application: General multipurpose mode.

Preconditioning Services

Our preconditioning services can help alleviate the space, time, and labour costs involved with refining an animal model to meet your unique research requirements. Whether you are looking for animals fed a special diet, altered through surgery, or reared to a certain age, Charles River has the state-of-the-art animal facilities, professional animal care, and robust model selection to deliver study-ready animals right to your door.

- Pre-ID™ services (e.g., RapID Tags®, ear tag, microchip, ear notch, tattoo)
- Custom diets, aging services, and disease-induced models
- Rodent surgery services
- Training and on-site surgery
- Non-GLP *in vivo* studies
- Biospecimens
- ALZET® Osmotic Pumps

+ Learn more



+ Learn more

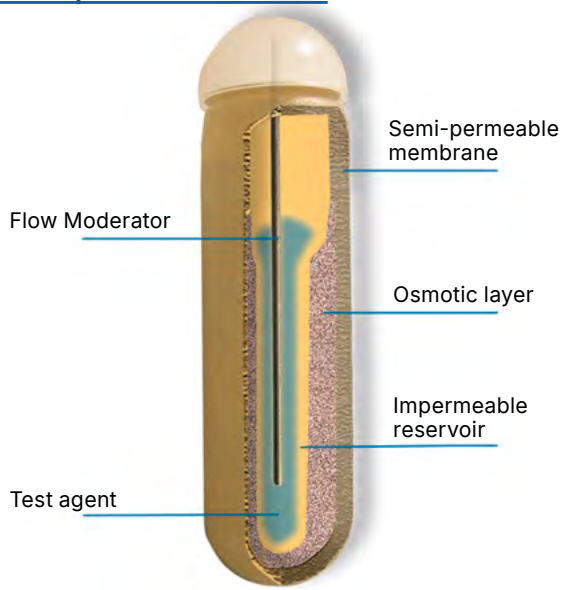
Alzet® Osmotic Pumps

Charles River is the exclusive distributor of ALZET® Osmotic Pumps for France, Germany, Austria, Switzerland, Belgium, Netherlands, Spain, Portugal, Italy, Hungary, Czech Republic, UK and Ireland. ALZET® Osmotic Pumps are miniature infusion systems that deliver test agents at controlled rates into mice, rats, and other laboratory animals. In addition to systemic administration, targeted delivery to an area remote from the site of implantation can be achieved by attaching a catheter to the pumps. ALZET® Osmotic Pumps offer a good alternative to repeated animal dosing by injection or oral gavage. Their continuous delivery eliminates peak and trough fluctuations and allows the effects of test agents to develop fully and reproducibly, particularly those with short half-lives.

ALZET® Osmotic Pumps help minimise animal stress that develops through frequent handling. They can eliminate the necessity for weekend and nighttime dosing. During infusion, no external connections are required, and the animals are untethered and unrestrained. Since ALZET® Osmotic Pumps are fully implanted, they are tamperproof. Individual caging of the animals is not required.

Comprehensive technical information is available on Alzet® Osmotic Pumps website

Osmotic Pump Mechanism

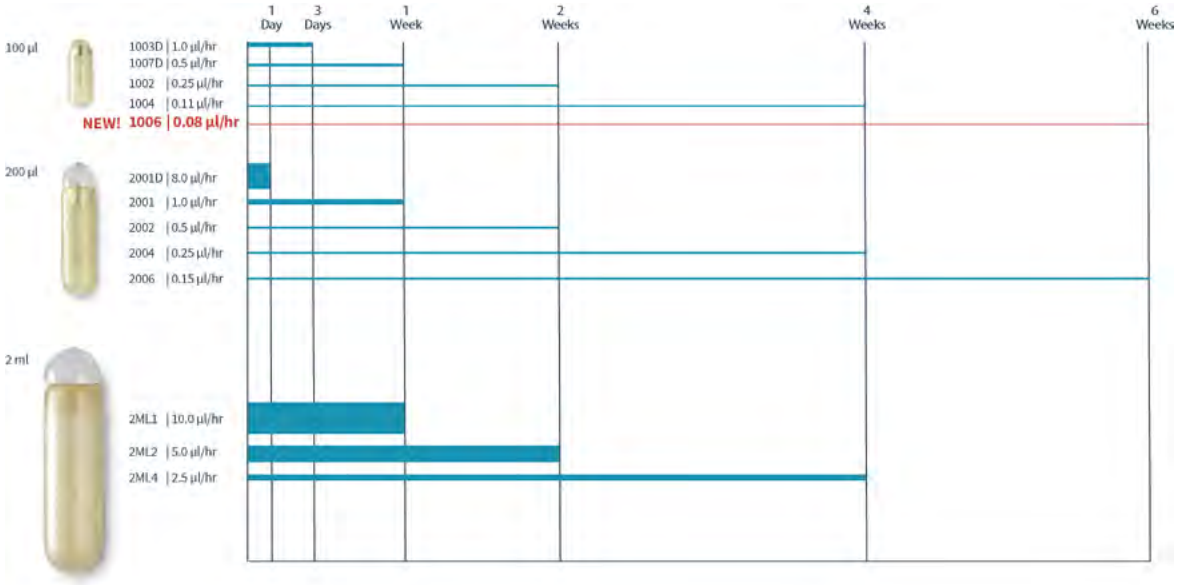


Choose the best pump model for your study design

Presently, there are 13 pump models available that differ in volume (100 µl - 2 ml), duration (1 day - 6 weeks) and delivery rate (0,08 µl/hr - 0,11 µl/hr).

Dosage variability can be achieved by modifying agent concentration; duration can be extended by serial implantation of the pumps.

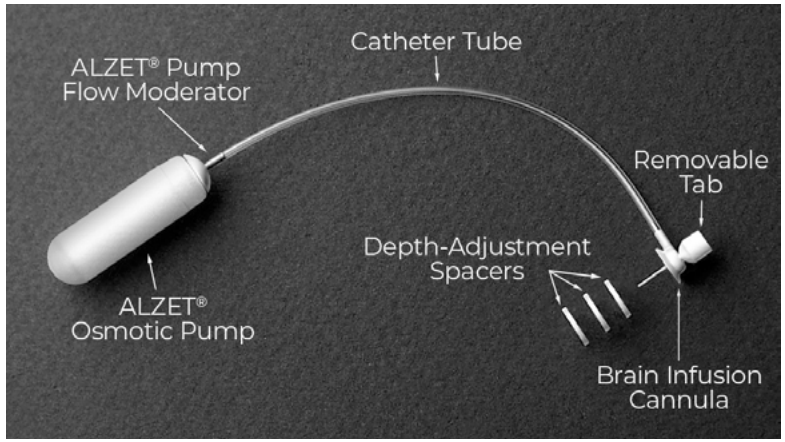
Note: Nominal specifications are listed for each pump model. Individual lots of pumps will vary from this target within limits. The actual pumping rate and fill volume of a particular lot (derived by statistical testing) are included with the pumps.



ALZET® is a registered trademark of ALZET LLC.

Bypass the Blood-Brain Barrier

For direct delivery to the cerebral ventricles and brain tissue, the pumps can be combined with the Brain Infusion Kit 1, 2 or 3.



Animal Considerations

Choose the right pump model to suit your animal and route of delivery. The table below lists the estimated minimum animal size required for implantation of ALZET® Osmotic pumps.

Pump Model	Mice		Rat	
	Subcutaneous	Intraperitoneal	Subcutaneous	Intraperitoneal
1003D 1007D 1002 1004 **NEW** - 1006	10 g	20 g	10 g	20 g
2001D 2001 2002 2004 2006	20 g	N/A	20 g	150 g
2ML1 2ML2 2ML4	N/A	N/A	150 g	300 g

Note: The minimum animal size estimates are based on experience with male Sprague Dawley® rats and Swiss Webster mice. When using the pumps with other types or genders of rats and mice, or with animals other than rats and mice, these guidelines should be modified accordingly.

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Price

Pump Model	Volume	Duration	Release Rate	Product Code	
1003D	100 µl	3 days	1,0 µl/hr	0000289	569,55
1007D	100 µl	1 week	0,5 µl/hr	0000290	670,30
1002	100 µl	2 weeks	0,25 µl/hr	0004317	823,43
1004	100 µl	4 weeks	0,11 µl/hr	0009922	981,94
NEW - 1006	100 µl	6 weeks	0.08 µl/hr	0009933	1065,42
2001D	200 µl	1 day	8,0 µl/hr	0000294	823,43
2001	200 µl	1 week	1,0 µl/hr	0000292	569,55
2002	200 µl	2 weeks	0,5 µl/hr	0000296	670,30
2004	200 µl	4 weeks	0,25 µl/hr	0000298	823,43
2006	200 µl	6 weeks	0,15 µl/hr	0007223	979,85
2ML1	2 ml	1 week	10,0 µl/hr	0000323	825,11
2ML2	2 ml	2 weeks	5,0 µl/hr	0000325	981,94
2ML4	2 ml	4 weeks	2,5 µl/hr	0000327	1178,06

Each pack contains 10 osmotic pumps, 10 flow moderators, and 1 disposable filling tube.

Note: Nominal specifications are listed for each pump model. Individual lots of pumps will vary from this target within limits. The actual pumping rate and fill volume of a particular lot (derived by statistical testing) included with the pumps.

Accessories	Product Code	Price per pack of 10 - €
Filling Tubes - 100 µl pumps	0007988	49,78
Filling Tubes - 200 µl pumps	0007987	49,78
Filling Tubes - 2 ml pumps	0007986	49,78
PEEK Tubing - 100 µl pumps	0002612	34,43
PEEK Tubing - 200 µl pumps	0002496	34,43
PEEK Tubing - 2 ml pumps	0002511	34,43
Flow Moderators - 100 µl pumps	0002602	63,61
Flow Moderators - 200 µl pumps	0002486	63,61
Flow Moderators - 2 ml pumps	0002501	63,61
Coloured Flow Moderators - 100 µl pumps BLUE	0002609	91,40
Coloured Flow Moderators - 100 µl pumps TEAL	0002607	91,40
Coloured Flow Moderators - 200 µl pumps BLUE	0002489	91,40
Coloured Flow Moderators - 200 µl pumps TEAL	0002488	91,40
Coloured Flow Moderators - 2 ml pumps BLUE	0002504	91,40
Coloured Flow Moderators - 2 ml pumps TEAL	0002503	91,40
ALZAID Test Kit		**Price each - €**
The ALZAID® Test Kit contains enough material to test up to 4 substances	0004750	59,47
Brain Infusion Kits (BIK)*		**Price each - €***
BIK 1 - 28 gauge; 3-5 mm penetration depth from skull surface, pack of 10	0004760	248,21
BIK 2 - 28 gauge; 3-5 mm penetration depth from skull surface, pack of 10	0008663	248,21
BIK 3 - 30 gauge; 1-3 mm penetration depth from skull surface, pack of 10	0008851	248,21
Cyanoacrylate Adhesive (Loctite 454), 1 tube	0008670	19,47
Cannula Holder 1	0008860	549,30
Cannula Holder 2	0008861	798,98

** Brain Infusion Kit units contain: 10 infusion cannulas, 10 vinyl catheter tubes, 40 spacers. Pumps sold separately.*

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Catheters, Medical grade polyethylene (PE) and vinyl tubing - Sterile	Product Code	Price per 10 - €
PE60 - 15 cm total length; distal tip 3.5 Fr; ALZET connection	0007750	64,42
Vinyl - 15 cm total length; distal tip 3.5 Fr; ALZET connection	0007760	62,99

Special Catheters		Price each - €
Rat Jugular Catheter	0007710	29,44
Rat Femoral Catheter	0007720	24,73
Rat Femoral Catheter - Tapered	0007730	31,72
Rat Intrathecal Catheter	0007740	46,88
Rat Intrathecal Catheter - Short	0007741	46,88
Rat Intraperitoneal (IP) Catheter	0007770	32,13
Mouse Jugular Catheter	0007700	28,09
Mouse Jugular Catheter - Adjustable Length	0007701	29,17
Mouse Jugular Catheter - Large Tip	0007702	29,17
Mouse Intrathecal Catheter	0007743	44,93
Mouse Intraperitoneal (IP) Catheter	0007771	32,13

AutoClip® Wound Closure System (9 mm)		Price - €
AutoClip® 100 clips	0009950	59,26
AutoClip® Kit 100 (includes Applier, Remover and 100 clips)	0009953	688,87
AutoClip® Kit 500 (includes Applier, Remover and 500 clips)	0009954	871,14
AutoClip® Applier	0009956	443,16
AutoClip® Remover	0009957	240,57

Reflex Wound Closure System (7 mm)		Price - €
Reflex 100 clips	0009971	107,95
Reflex Kit 100 (includes Applier, Remover and 100 clips)	0009972	873,66
Reflex Kit 500 (includes Applier, Remover and 500 clips)	0009973	1270,55
Reflex Applier	0009974	443,16
Reflex Remover	0009976	354,53

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Research Animal Diagnostic Services

Charles River Research Animal Diagnostic Services is the only comprehensive partner that offers solutions from prevention to resolution. Through innovations like the HemaTIP™ Microsampler, PathogenBinder®, and Exhaust Air Dust (EAD®) testing with our PCR Rodent Infectious Agent (PRIA®) panels, we can efficiently manage your animal health surveillance programme.

Our complementary services include consultations with Charles River professional scientific staff as well as access to Laboratory Testing Management® (LTM™). LTM™ is an online, free, and secure system to store and access testing records and results. We offer complimentary sample collection, shipping supplies, and retesting.

- Sentinel-Free Health Monitoring Methods
- Routine Animal Health Monitoring
- Cell Line/Research Biologics Screening
- Health Monitoring for Germ-Free Animals
- Serology Testing and Reagents
- Microbiology Culture, Parasitology, Pathology

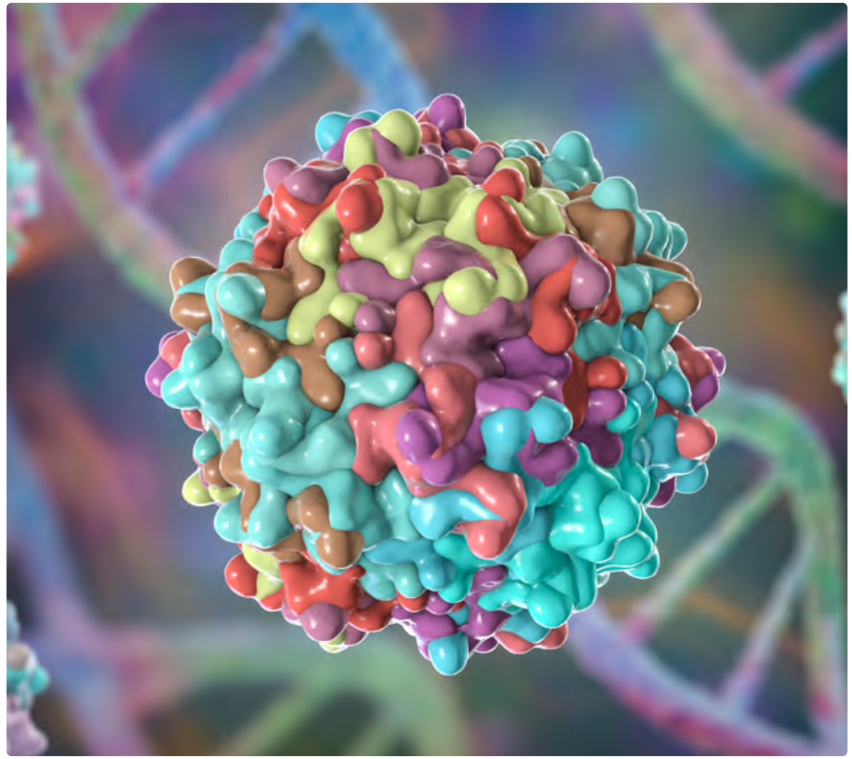
+ Learn more

PRIA PCR Panels

Our PRIA® panels provide you with the ability to monitor for vast numbers of agents from a single sample source. Services are available for screening colony animals directly, for screening indirectly via environmental sampling, for exhaust air dust (EAD®) testing, or PathogenBinder®.

PRIA® Panels - Direct animal, EAD®, PathogenBinder®

- + Mouse
- + Rat
- + Guinea Pig
- + Rabbit
- + Gerbil
- + Hamster
- + Zebrafish
- + Xenopus



Serology Profiles

Our primary serology testing method is the Multiplexed Fluorometric ImmunoAssay® or MFIA®. Additionally, we utilise other methods such as the Indirect Fluorescent Antibody Test (IFA) or Enzyme-Linked Immunosorbent Assay (ELISA) to confirm questionable or positive results, as well as to screen select rare agents. Blood or diluted serum samples collected at your facility can be submitted directly to our laboratory for testing. Once you are ready to submit samples, visit LTM™ to create your order online.

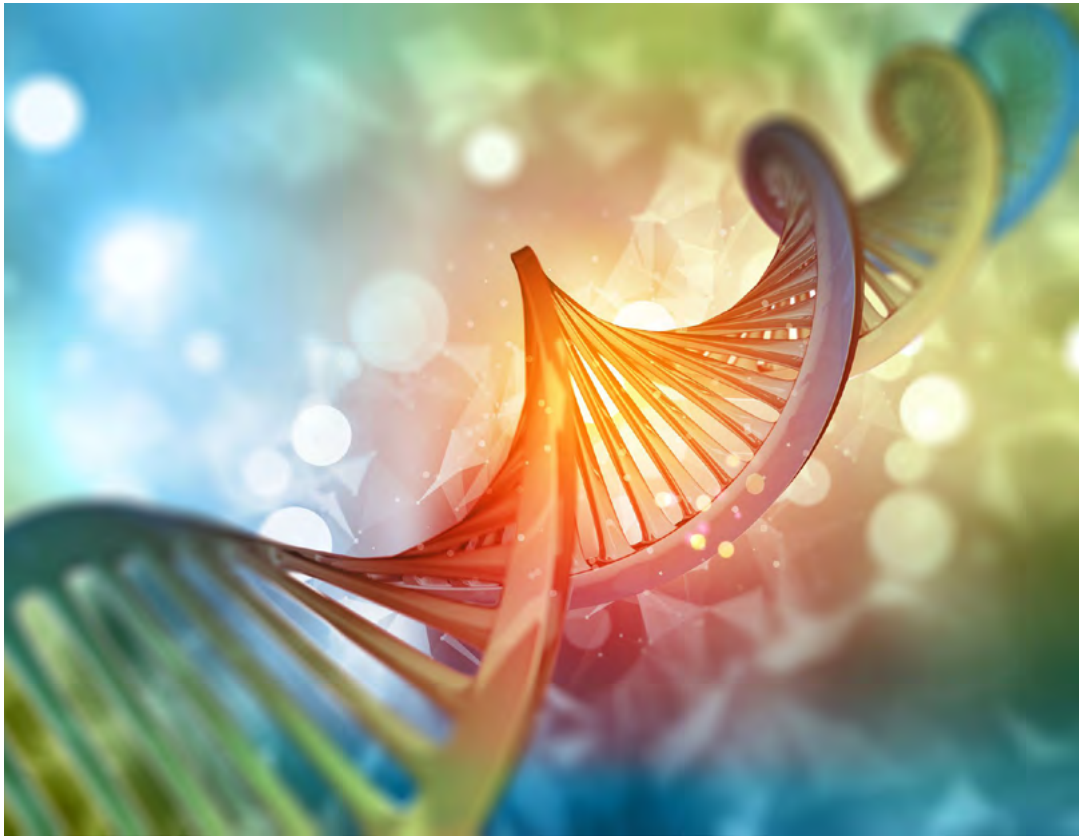
The HemaTIP™ blood microsampler simplifies the blood collection process by placing the media on the tip of an easy-to-hold stylus.

The tip only needs to touch the blood, and its super-absorptive matrix media wicks the sample in 3-6 seconds.

Panels

- + Mouse
- + Rabbit
- + Rat
- + Gerbil
- + Guinea Pig
- + Hamster

Genetically Engineered Models and Services



Charles River has taken pride in being a comprehensive provider of integrated services, including customised breeding programmes, quarantine space, model creation, genetic testing, rederivation, IVF, and cryopreservation. We developed a custom-designed software solution called ICM™ (Internet Colony Management) for both project and vivarium management. Tablet computers and RFID are used to capture data and colony information in real time, instantly providing full visibility of activities with easy online access.

- Mouse & rat breeding & colony management
- Rat & mouse model creation
- Genetic testing services
- Cryopreservation
- Cryorecovery
- Rederivation
- Rapid colony development
- Quarantine services
- Line rescue
- MEA testing
- **NEW** - Flp and Cre recombinase gene editing
- **NEW** - Genocheck
- **NEW** - IVF-assisted speed congenics

+ Learn more

Insourcing Solutions®

With Charles River's Insourcing Solutions®, we provide customised workplace solutions that seamlessly integrate into your research programme, becoming an extension of your own facility.

Offering staffing, training, consulting and other animal facility support services - we help clients streamline their drug discovery and development programmes to make best use of their resources and achieve optimum results.

- CRADL® Vivarium Lab Space
- Staffing and Facility Management
- Expert Consulting
- Training

+ Learn more

Glossary of Terms

Glossary of Terms

Agent	Abbreviation	Family/Order	Subfam/Genus	Host Species*
Adenovirus	MAV, RAD	Adenoviridae	Mastadenovirus	M, R
Aleutian disease virus	ADV	Parvoviridae	Amdovirus	F
Cilia-associated respiratory bacillus	CARB	Unclassified	Unclassified	M, R, Rb
Clostridium piliforme	CPIL	Clostridaceae	Clostridium	M, R, Rb, F
Distemper virus	CDV	Paramyxoviridae	Morbillivirus	F
Ectromelia virus (Mousepox)	ECTRO	Poxviridae	Orthopoxvirus	M
Eimeria	EIM	Eimeriidae	Eimeria	M, Rb
Encephalitozoon cuniculi	ECUN	Pleistrophoridiae	Encephalitozoon	M, R, GP, H, Rb
Encephalomyocarditis virus	EMCV	Picornaviridae	Cardiovirus	M, R
Guinea pig adenovirus	GAV	Adenoviridae	Mastadenovirus	GP
Guinea pig cytomegalovirus	GpCMV	Herpesviridae	Betaherpesvirus	GP
Hantaan	HTNV (HANT)	Bunyaviridae	Hantavirus	M, R
Infectious pancreatic necrosis virus	IPNV	Birnaviridae	Aquabirnavirus	Z
Infectious spleen and kidney necrosis virus	ISKNV	Iridoviridae	Megalocytivirus	Z
Influenza A virus	INFA	Orthomyxoviridae	Influenzavirus A	F
Kilham rat virus	KRV	Parvoviridae	Protoparvovirus	R
Lactate dehydrogenase elevating virus	LDV/LDH	Arteriviridae	Arterivirus	M
Ljungan virus	LV	Picornaviridae	Parechovirus	R
Lymphocytic choriomeningitis virus	LCMV	Arenaviridae	Arenavirus	M, R, GP, H
Minute virus of mice	MVM	Parvoviridae	Protoparvovirus	M
Mouse chapparvovirus	MuCPV	Parvoviridae	Chapparvovirus	M
Mouse cytomegalovirus	MCMV	Herpesviridae	Betaherpesvirus	M
Mouse hepatitis virus	MHV	Coronaviridae	Betacoronavirus	M
Mouse parvovirus	MPV-1/-2/-5	Parvoviridae	Protoparvovirus	M
Mouse pneumonitis virus	K	Polyomaviridae	Polyomavirus	M
Mouse thymic virus	MTLV	Herpesviridae	Roseolovirus	M
Murine norovirus	MNV	Caliciviridae	Norovirus	M
Murine rotavirus	EDIM/ROTA-A	Reoviridae	Rotavirus	M
Mycoplasma arthritidis	MARTH	Mycoplasmataceae	Mycoplasma	M, R
Mycoplasma pulmonis	MPUL	Mycoplasmataceae	Mycoplasma	M, R
Myxomatosis virus	MYXO	Poxviridae	Leporipoxirus	Rb
Parainfluenza virus (type 1)	PIV-1	Paramyxoviridae	Respirovirus	Rb
Parainfluenza virus (type 2)	PIV-2	Paramyxoviridae	Rubulavirus	Rb
Parainfluenza virus (type 3)	PIV-3	Paramyxoviridae	Respirovirus	GP
Parainfluenza virus (type 5)	PIV-5	Paramyxoviridae	Rubulavirus	GP, H

** Species: M = mouse, R = rat, GP = guinea pig, H = hamster, Rb = rabbit, F = ferret, Z = zebrafish*

Glossary of Terms

Agent	Abbreviation	Family/Order	Subfam/Genus	Host Species*
Pneumocystis carinii	PCAR	Pneumocystidaceae	Pneumocystis	R
Pneumonia virus of mice	PVM	Paramyxoviridae	Pneumovirus	M, R, GP, H
Polyoma virus	POLY	Polyomaviridae	Polyomavirus	M
Prospect Hill virus	PHV	Bunyaviridae	Hantavirus	M
Rabbit adenovirus	RbAV	Adenoviridae	Mastadenovirus	Rb
Rabbit adenovirus	RbAV	Adenoviridae	Mastadenovirus	Rb
Rabbit hemorrhagic disease virus	RHDV	Caliciviridae	Lagovirus	Rb
Rabbit picobirnavirus	RPBV	Picobirnaviridae	Picobirnavirus	Rb
Rabbit rotavirus	ROTA	Reoviridae	Rotavirus	Rb
Rat coronavirus/sialodacryoadenitis virus	RCV, SDAV	Coronaviridae	Betacoronavirus	R
Rat cytomegalovirus	RCMV	Herpesviridae	Betaherpesvirus	R
Rat minute virus	RMV	Parvoviridae	Protoparvovirus	R
Rat parvovirus	RPV	Parvoviridae	Protoparvovirus	R
Rat polyomavirus	RatPyV2/RPyV2	Polyomaviridae	Unclassified	R
Rat rotavirus (infectious diarrhoea of infant rats)	IDIR/ROTA-B	Reoviridae	Rotavirus	R
Rat theilovirus (Theiler's-like virus of rats)	RTV	Picornaviridae	Theilovirus	R
Reovirus	REO	Reoviridae	Orthoreovirus	M, R, GP, H
Rodent Protoparvovirus NS-1	NS-1	Parvoviridae	Protoparvovirus	M, R
Sendai virus	SEND	Paramyxoviridae	Respirovirus	M, R, GP, H
Seoul virus	SEO	Bunyaviridae	Hantavirus	M, R
Theiler's murine encephalomyelitis virus	TMEV (GDVII)	Picornaviridae	Cardiovirus	M, R
Toolan's H-1 virus	H-1	Parvoviridae	Protoparvovirus	R
Toxoplasma gondii	TOXO	Sarcocystidae	Toxoplasma	Rb
Treponema paraluis-cuniculi	TREP	Spirochaetales	Treponema	Rb

** Species: M = mouse, R = rat, GP = guinea pig, H = hamster, Rb = rabbit, F = ferret, Z = zebrafish*

Glossary of Terms

Agent	Abbreviation	Family/Order	Subfam/Genus	Host Species
Epstein-Barr virus	EBV	Herpesviridae	Lymphocryptovirus	Simian
Hepatitis A	HEP-A	Picornaviridae	Hepatovirus	Simian
Herpes B virus	HBV	Herpesviridae	Alphaherpesvirus	Simian
Herpes virus papio-2	HVP-2	Herpesviridae	Alphaherpesvirus	Simian
Lymphocryptovirus	LCV	Herpesviridae	Lymphocryptovirus	Simian
Macaque (Rhesus) rhadinovirus	MRV	Herpesviridae	Rhadinovirus	Simian
Malaria (Plasmodium)	MAL	Plasmodiidae	Plasmodium	Simian
Measles virus	MV	Paramyxoviridae	Morbillivirus	Simian
Parainfluenza virus (type 5)	PIV-5 (SV-5)	Paramyxoviridae	Rubulavirus	Simian
Simian agent 8	SA-8	Herpesviridae	Simplexvirus	Simian
Simian cytomegalovirus	SCMV/CMV	Herpesviridae	Cytomegalovirus	Simian
Simian foamy virus	SFV	Retroviridae	Spumavirus	Simian
Simian immunodeficiency virus	SIV	Retroviridae	Lentivirus	Simian
Simian rotavirus	SA-11	Reoviridae	Rotavirus	Simian
Simian T-lymphotropic virus	STLV	Retroviridae	Deltaretrovirus	Simian
Simian type D retrovirus	SRV	Retroviridae	Betaretrovirus	Simian
Simian varicella virus	SVV	Herpesviridae	Varicellovirus	Simian
Simian virus 40	SV-40	Polyomaviridae	Polyomavirus	Simian
Trypanosoma cruzi Chagas Disease)	T. cruzi/CHA	Trypanosomatidae	Trypanosoma	Simian

** Species: M = mouse, R = rat, GP = guinea pig, H = hamster, Rb = rabbit, F = ferret, Z = zebrafish*

General Terms and Conditions of Sale

Charles River Laboratories Research Models and Services, Germany GmbH and Charles River Biopharmaceutical Services, GmbH (“Charles River”) will provide the goods (“Products”), animals (“Models”) and services (“Services”) described in the Charles River acknowledgement, quotation, invoice, protocol, or statement of work (collectively hereinafter, “SOW”) and Charles River’s customer (“Customer”) will purchase the Products, Models and/or Services pursuant to the specifications contained in the SOW and in accordance with these Terms and Conditions. These Terms and Conditions will also apply to all future purchases of Products, Models and/or Services by Customer.

1. Binding Character

1.1. Customer’s purchases of Products, Models and/or Services are (a) exclusively governed by these Terms and Conditions, including any mutually agreed special terms and conditions set forth separately and (b) constitutes Customer’s express acceptance of these Terms and Conditions. This provision also applies if Charles River delivers Products or Models or provides Services despite being aware of conflicting or additional standard terms and conditions of Customer.

1.2. No other document attempting to negate or otherwise modify the terms hereof, including any purchase order or request for proposal or any deviating or supplementing standard terms and conditions of Customer, will be binding upon Charles River unless expressly agreed to Charles River in writing.

2. Provision of the Products and Conduct of the Services

2.1. Customer will adhere to all applicable laws, rules and regulations (“Applicable Law”).

2.2. If an amendment to the SOW requires additional or different work on the part of Charles River, Charles River may agree to conduct such work and will be paid an amount mutually agreed to by the parties. Deviations from the SOW may be made in an emergency without Customer’s approval, provided that Charles River use commercially reasonable efforts to obtain Customer’s verbal approval, which will be subsequently confirmed by Customer in writing. The parties acknowledge that during the course of performing the Services in accordance with the SOW, additional costs may be incurred by Charles River as a result of procedural changes, which do not amount to, or require a change in, the SOW, but which are deemed necessary by Charles River to successfully perform the Services, and which could not be foreseen at the time of the preparation of the SOW. If such procedural change occurs, Charles River will advise Customer prior to implementation and solicit Customer’s agreement as to the necessity and additional cost thereof. If Charles River is unable to contact Customer in advance, Customer agrees that in order to maintain the integrity of the Services, Charles River may proceed accordingly, and recover such additional costs from Customer upon presentation of an explanation of such procedural changes and the necessity thereof.

2.3. Charles River’s offers are without obligation. Unless expressly confirmed by Charles River in writing, any indicated delivery dates or indicated lead times do not constitute fixed date transactions within the meaning of §323 para. 2 No. 2 German Civil Code (BGB) or §376 German Commercial Code (HGB). Any deliveries are “ex works” (Incoterms 2020) at Charles River’s premises unless expressly agreed otherwise with Customer in writing. Place of performance and delivery is at Charles River’s premises. Title to the Products and/or Models will pass to Customer once the Products and/or Models leave Charles River’s facility or are delivered to a common carrier, as applicable.

3. Restrictions on Use and Breeding

3.1. Customer understands that Charles River engages in a comprehensive health monitoring, bioexclusion and quality control program. Customer agrees the results of this program only provide retrospective information relating to the timing and effectiveness of sampling and that Charles River’s program is not a substitute for Customer’s own health monitoring and bioexclusion practices. Charles River does not warrant the Products and/or Models will be free of infectious agents or other defects at time of delivery. Charles River will provide assistance for monitoring and testing to Customer upon written request subject to the availability of such assistance and Customer paying the standard fees for such assistance.

3.2. Customer will use Models and Products in accordance with all Applicable Laws. Customer agrees and will ensure that all Models purchased from Charles River will not be: (i) used for any purpose other than the internal research of Customer, (ii) bred (for sale or otherwise), unless Charles River provides Customer with prior written consent, (iii) provided to any agent or other third party for any reason, including, but not limited to, breeding or other services, unless Charles River provides Customer with prior written authorization, or (iv) modified in any way without the prior written authorization of Charles River, except for modifications for internal research purposes only. Models from Charles River include: (i) the purchased animals themselves, (ii) all descendants of those purchased animals derived by inbreeding or crossbreeding, including modified and unmodified derivatives of those animals or their descendants, or by any other reproductive technologies, and (iii) animals purchased from Charles River that have been modified in any way (genetically or otherwise) and their descendants. Customer will not, without the prior written consent of Charles River, return Products, Models or shipping containers to Charles River.

3.3. The purchase of any Products or their components, Models or Services conveys to Customer the non-transferable, non-sublicensable, non-exclusive right to internally use the Model, Product, and the components of the Product, only in research conducted by Customer and specifically in accordance with the SOW. Customer cannot sell, transfer, or make available to a third party the Products or their components, Models including if modified, or the Services for Commercial Purposes without prior written consent. “Commercial Purposes” means any activity for cash or other consideration not expressly permitted by Charles River including, but not limited to sale, resale, and/or distribution of the Products and/or Models (including if modified), or their components or materials made using the Product or their components, except by licensed distributors of Charles River, whether or not resold for use in research. The foregoing limitations are required by Charles River given the nature and sensitivity of the Products, Models and Services provided by Charles River. To the extent that Charles River owns or controls (with the right to sublicense) patent rights or other intellectual property rights applicable to the Models or Products, those rights are licensed to Customer on a limited, revocable, non-exclusive, non-transferable, and non-sublicensable basis only for the internal uses expressly permitted above. If Customer fails to comply with the foregoing limitations, in addition to any other remedies available to Charles River, the rights granted under this section will automatically terminate.

3.4 These Terms and Conditions are expressly made subject to any laws, regulations, orders, or other restrictions on the export or import of the Products, Models or Services or information about such Products, Models or Services which may be imposed from time to time by any applicable government or government entity, including, but not limited to. the United States of America. Customer will not export the Products, Models or information about the Products, Models or Services without the prior written consent of Charles River and compliance with such laws, regulations, orders, or other restrictions. Customer represents and warrants that (a) it is not located in a country that is subject to a U.S. Government or other internationally regulated embargo, or that has been designated by the U.S. Government or other international regulatory agency as a “terrorist supporting” country; and (b) Customer is not listed on any U.S. Government or other applicable international list of prohibited or restricted parties.

4. Compensation

4.1. Unless otherwise agreed to by the parties, prices will be as per the price list (if applicable, price of Models is based on highest weight range) on the day of delivery, and do not include taxes, packaging, insurance or shipment expenses. Charles River may modify the price list by notice to customer from time to time. Customer will pay Charles River as set forth in the SOW for Services, Products and/or Models. All invoices are due and payable thirty (30) days from the date of the invoice without any deductions and Customer agrees to pay all invoices submitted. Customer will not withhold payment, assert a right of retention or set off any counterclaims unless Customer’s counterclaims have been finally adjudicated by a competent court or have been acknowledged by Charles River in writing. All amounts not paid by Customer when due will accrue interest from the applicable due date until paid, at the highest rate permitted under Applicable Law. Charles River may also elect to cease or suspend the supply of the Models or Products and any work on the Services, or withhold required reports or other deliverables if Customer does not make payments when due and payable.

4.2. All termination, delay or cancellation fees are set forth in the applicable Research Models and Services catalog or the SOW.

4.3. If in the judgment of Charles River, Customer’s financial condition is precarious or there has been a materially adverse change in Customer’s financial condition, Charles River will have the right to demand payment or other assurances which it deems adequate before providing any Products, Models or Services.

5. Test Articles

5.1. Customer will provide Charles River with sufficient amounts of compounds, materials, animals, substances, devices and protocols meeting relevant specifications, including health and genetic data (“Test Articles”) with which to perform the Services. Customer will provide Charles River with complete and accurate data to apprise Charles River of the identity, strength, purity, stability, composition or other characteristics, proper storage and safe handling requirements of the Test Articles, including a Material Safety Data Sheet (MSDS) or equivalent documentation. Customer will certify to Charles River that the methods of synthesis, fabrication, or derivation of the Test Articles have been documented. All costs associated with shipping the Test Articles to Charles River will be the responsibility of Customer, and Charles River will not be responsible for any loss, damage or destruction of the Test Articles while in transit. All Test Articles and materials used in connection with the Services will remain the property of Customer.

6. Reports

6.1. Charles River will keep complete and accurate records of the status and progress of the Services if agreed in the SOW or as required by Applicable Law. Charles River will furnish a report or data containing information as specified in the SOW. All reports will be prepared in the standard format of Charles River.6.2. Neither Charles River nor Customer will publish any report or data prepared for Customer by Charles River without the prior written consent of the other party, which will not be unreasonably withheld.

6.3. If Charles River provides electronic access to the data, records, reports and other documentation and Customer elects to use such electronic access, the use of such electronic access will be governed by Charles River’s standard access terms and conditions which are available on request.

7. Inspections

7.1. Upon reasonable advance written notice, at mutually agreeable and during regular business hours, Charles River will permit Customer to visit the Charles River facilities where the Services are performed to monitor Charles River’s performance of the Services, in compliance with Charles River’s biosecurity measures, Charles River’s business requirements and ensuring an uninterrupted course of business at Charles River’s premises.

7.2. Charles River will notify Customer as soon as practical in the event of any regulatory inspection of Charles River’s facilities that directly impact the Services provided to Customer.

8. Ownership

8.1. Any inventions, techniques, intellectual property, technology, commercial and/or industrial secrets, regardless of whether patented or registered, for providing the Models or Products or performing the Services are, and will remain, Charles River’s exclusive property including, but not limited to, present and future documentation, scientific and technical data, test procedures and other information that is owned or licensed by Charles River and is not developed hereunder. Charles River will have the right to use concurrent control data as part of its general historical database. Any data, discoveries or inventions developed or generated, which directly relate to any information or materials provided by Customer will be the property of Customer. Charles River agrees to assist Customer in securing any patents, copyrights or other proprietary rights in such data, discoveries or inventions, and to perform all reasonable acts that may be reasonably required to vest in Customer all right, title and interest in such data, discoveries or inventions, and Charles River will be compensated at its standard rates for such assistance. All costs and expenses associated with establishing Customer’s rights therein will be Customer’s responsibility.

9. Archiving

9.1. Provided that Customer is not in financial default under this Terms and Conditions or under any SOW, all reports and supporting documentation resulting from the Services are Customer’s property (“Materials”). Charles River will retain the Materials for the period set forth in the SOW. At the end of such period, Charles River will contact Customer to determine whether to, all options at Customer’s expense: (a) extend storage of the Materials; (b) return the Materials to Customer or (c) disposal of Materials. If Customer requests Charles River to continue to store the Materials and Charles River agrees, Charles River will invoice Customer at Charles River’s then current rates. If Customer fails to give such instructions, Charles River will notify Customer, and if instructions are not forthcoming within thirty (30) days of said notification, Charles River will have the option of continuing to store the Materials or returning the Materials to Customer at Customer’s expense. Customer will be liable for storage charges until the Materials are returned to Customer. While the Materials are in transit to Customer, all risk of loss or exposure to the Materials will be borne by Customer.

9.2. If the Materials require special storage conditions, additional charges for storage will be assessed and invoiced to Customer. Invoices will be issued annually in advance and are due and payable upon receipt.

10. Warranties

10.1. Customer warrants that it owns all rights, title and interest in the Test Articles furnished to Charles River and the intellectual property related thereto, and that Charles River’s use of the Test Articles does not infringe any third party rights.

10.2. Subject to section 3, Charles River warrants that the Products and Services will conform to the specifications contained or agreed in the applicable SOW and any Applicable Law at the time of delivery or performance. Charles River does not warrant or represent that the results of the Services will be acceptable to any regulatory or governmental agency nor that the results of the Services will enable Customer to further develop, market or otherwise exploit the Test Articles or any other product or service.

10.3. THE WARRANTY BY CHARLES RIVER SET FORTH HEREIN IS IN LIEU OF ANY AND ALL OTHER REPRESENTATIONS OR WARRANTIES, EXPRESS, IMPLIED, OR STATUTORY INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, SUITABILITY OF THE PRODUCTS, MODELS AND SERVICES FOR CUSTOMER’S PURPOSES, IMPACT OF THE PRODUCTS, MODELS AND SERVICES ON CUSTOMER’S OPERATIONS, OR NON-INFRINGEMENT OF A PATENT, TRADEMARK OR OTHER INTELLECTUAL PROPERTY RIGHT.

10.4 Any claim for breach of warranty must be made in writing to Charles River within ten (10) business days after the Products or Models are delivered or the completion of Services, or per Applicable Law, after which time the Products, Models or Services will be deemed finally accepted. Subject to the limitations set forth in Section 11, if Charles River commits a breach of the warranty as set forth in this Section, Charles River’s sole liability, and Customer’s sole remedy, will be for Charles River to replace the Products or Models, or issue a credit therefore, or conform the work or portion of the Services affected by the breach to the relevant specification. Charles River will be entitled, at its sole election, to correct or replace the defective Product, Model or Service or to issue a credit. The delivery of a defective Product, Model or Service will not constitute a violation of a material contractual obligation by Charles River.

11. Limitation of Liability

11.1. Charles River will not be liable for penalties or liquidated damages or for special, indirect, consequential, punitive, exemplary or incidental damages of any type or kind (including, without limitation, lost profits) regardless of whether any such losses or damages are characterized as arising from breach of contract, breach of warranty, tort, negligence, strict liability or otherwise, even if Charles River is advised of the possibility of such losses or damages, or if such losses or damages are foreseeable.

11.2. Charles River’s liability, regardless of the form of action, will be limited to actual and foreseeable damages and will not exceed the total price paid for the Products, Models or Services pursuant to which such liability arises. Charles River will not be liable for any damages arising from, or in connection with, any decision by Customer or any third party to further research, develop or market the Test Articles or any derivative or product or service related thereto, or the use made of the Products, Models, Services or Test Articles derivative or service related thereto.

11.3. In the case of a delay in delivery for which Charles River is responsible, Charles River’s maximum liability is limited to an amount of 5% of the value of the delivery affected by the delay.

11.4. The limitations period for any claims against Charles River is twelve (12) months unless mandatory statutory provisions require a longer period of limitation.

11.5. The limitations of liability contained in this section 11 will not apply to (a) any damages that are attributable to gross negligence or willful misconduct of Charles River or its vicarious agents, (b) any culpable damages to a person’s life, body or health, (c) any foreseeable damages that are caused by a culpable violation of a material contractual obligation by Charles River or its vicarious agents, and (d) mandatory statutory liability of Charles River under the German Product Liability Act.

11.6. To the extent that the liability of Charles River is excluded or limited under this section 11, the same exclusion or limitation also applies to the liability of Charles River’s affiliates.

12. Indemnities

12.1. Customer will defend, indemnify, save and hold harmless Charles River, its parent, subsidiaries and affiliates and their respective directors, officers, employees and agents from and against any claims, demands, suits, actions, causes of action, losses, damages, fines and liabilities, including reasonable professional fees arising out of or in connection with or attributable to (a) the research, development, manufacture, distribution, use, sales or other disposition by Customer, or any distributor, collaborator, customer, sublicensee, representative or agent of Customer, of the Test Articles and/or any other substances upon which the Services were performed or any use made of the Products and/or Models, (b) any infringement of any third party’s patent or other intellectual property rights or unauthorized use or misappropriation of its know-how or trade secrets, (c) Customer’s gross negligence, willful misconduct, or breach of this agreement or (d) personal injury related to contact with the Products or Models during visits to Charles River’s facilities or after delivery of the Products or Models to Customer.

13. Insurance

13.1. Each party will have insurance sufficient to cover its interest or potential liabilities hereunder including, but not limited to, worker’s compensation, if applicable, and comprehensive general liability.

14. Confidentiality

14.1. In the course of providing the Products or Models or performing the Services, Charles River and Customer may exchange proprietary and confidential information. The parties will identify, in writing, such information as confidential and/or proprietary. If a party intends to disclose confidential information to the other party orally, the disclosing party will (i) alert the other party of the confidential nature of the disclosure prior to the disclosure and (ii) provide written notice to the other party of the confidential nature and contents of such disclosure within ten (10) days of the original disclosure. Each party will use its commercially reasonable efforts to maintain such information in confidence and will employ reasonable and appropriate procedures to prevent its unauthorized disclosure unless required by Applicable Law to disclose such information provided that, to the extent permitted by Applicable Law, the receiving party provides prompt written notice of such disclosure to the disclosing party and takes reasonable and lawful actions to avoid and/or minimize the extent of such disclosure or seek confidential handling of such information, all at the cost and expense of disclosing party. Neither party will use the other party’s proprietary and/or confidential information for any purpose other than in performance of this Agreement. The obligations of confidentiality set forth in this Section will survive termination or expiration of this Agreement for a period of five (5) years.

14.2. These confidentiality provisions will not apply to any information, which (i) is known to the receiving party at the time it was obtained from the disclosing party; (ii) is acquired by receiving party from a third party, and such third party did not obtain such information directly or indirectly from the disclosing party under obligation not to disclose; (iii) is or becomes published or otherwise in the public domain other than by violation of this Agreement by the receiving party; (iv) is independently developed by the receiving party without reference to or reliance upon the information provided by the disclosing party; or (v) is required to be disclosed by the receiving party to comply with Applicable Laws or governmental regulations; provided that the receiving party provides prompt written notice of such disclosure to the disclosing party and cooperates with the disclosing party’s reasonable and lawful actions to avoid and/or minimize the extent of such disclosure, at the disclosing party’s expense.

14.3. During any remote monitoring, audit or inspection of Charles River, Customer agrees not to (a) take photographs or use any other method of recording information regarding the site; (b) access or attempt to access or view any of the work product or network systems that are being used by Charles River without

the express permission and in the presence of the Charles River representative that is hosting the remote audit; or (c) remove any document, equipment or other materials from the remote study monitoring or audit without Charles River’s prior written permission.

15. Termination

15.1. Unless otherwise specified in the SOW, Customer may terminate the SOW at any time without cause upon thirty (30) days prior written notice to Charles River. In the event of such termination, Charles River will be paid for all Products and/or Models provided or Services rendered through the effective date of termination, together with any additional expenses incurred in connection with the shutdown of the Services including, without limitation, any irrevocably committed costs and any cancellation or termination fee set forth in the SOW.

15.2. Either party may terminate these Terms and Conditions or SOW, as applicable, at any time upon thirty (30) days prior written notice to the other party, for material breach of the Terms and Conditions by the other party if such breach is not remedied to the non-breaching party’s reasonable satisfaction within the thirty (30) day notice period.

15.3. Upon termination, neither party will have any further obligations, except that (i) the liabilities accrued through the date of termination and (ii) the obligations which by their terms survive termination, including the applicable confidentiality, record keeping, regulatory compliance, intellectual property and indemnification provisions of these Terms and Conditions, will survive termination.

16. Force Majeure

16.1. Except with respect to the payment of any amount due hereunder, neither party will be considered in default of the performance of any obligation hereunder to the extent that the performance of such obligation is prevented or delayed by fire, flood, earthquake, hurricane, explosion, disease, contamination, pandemic/epidemic, strike, acts of terrorism, war, insurrection, embargo, government requirement, civil or military authority, animal activism, act of God, or any other event, occurrence or condition which is not caused, in whole or in part, by that party, and which is beyond the reasonable control of that party.

17. Governing Law and Dispute Resolution

17.1. These Terms and Conditions and any dispute arising from or in connection with the sale of the Products, Models and/or Services are governed by, and will be construed in accordance with, German law, excluding the United Nations Convention on the International Sale of Goods and without regard to any choice of law principle that would dictate the application of the law of another jurisdiction.

17.2. The parties will attempt to resolve through negotiations any controversy, claim, or dispute. If the negotiations are not successful, the controversy, claim, or dispute will be submitted to third party mediation upon terms reasonably acceptable to the parties. If such claim, controversy or dispute is not resolved through mediation, upon written demand of either party, the claim, controversy or dispute will be submitted to arbitration. Such arbitration will take place in Munich, Germany, will be conducted in English, and will proceed in accordance with the Arbitration Rules of the German Institution of Arbitration (DIS) without recourse to the ordinary courts of law. A record and transcript of the proceedings will be maintained. Any award will be made in writing and in reasonable detail, setting forth the findings of fact and conclusion of law supporting the award. The determination of a majority of the panel of arbitrators will be the decision of the arbitrators, which will be binding regardless of whether one of whether one of the parties fails or refuses to participate in the arbitration. The arbitrators will decide on the recovery of the costs of the arbitration and statutory attorneys’ fees.

18. Miscellaneous

18.1. All notices from one party to the other will be in writing. Notices will be sent by internet transmission, overnight courier, or certified mail, return receipt requested. All notices will be effective upon receipt.

18.2. The business relationship of Charles River to Customer is that of an independent contractor and not of a partnership, joint venture, employer, agent or any other kind of relationship.

18.3. These Terms and Conditions, and the rights and obligations hereunder, may not be assigned or transferred by either party without the prior written consent of the other party.

18.4. These Terms and Conditions together with the SOW set forth the entire agreement and understanding between the parties, superseding any and all previous statements, negotiations, documents, agreements and understandings, whether oral or written, as to the subject matter hereof.

18.5. In the event that any one or more of the provisions contained in these Terms and Conditions is held to be invalid, illegal or unenforceable in any respect, that invalidity, illegality or unenforceability will not affect any other term or condition, and all other terms and conditions will remain in full force and effect.

18.6. Any modification or waiver of these Terms and Conditions will require written form and Charles River approval. This written form requirement also applies to a waiver or modification of the written form requirement itself.

19. Intellectual Property

Charles River® and Charles River Laboratories® are registered trademarks of Charles River Laboratories, Inc. VAF/Plus®, VAF/Elite®, BlastoKit®, CD®, CD-1®, CFW®, EAD®, Gnoto-safe®, PRIA®, SHO®, THE POUND MOUSE®, Multiplexed Fluorometric ImmunoAssay® (MFIA®), Laboratory Testing Management® and MAX-BAX® are registered trademarks of, or are under license by, Charles River Laboratories, Inc. CDF™, CF-1™, EAD™, PRIA™, Sew Easy™, ICM™ and LTM™ are trademarks of, or are under license by, Charles River Laboratories, Inc. The SourceSM is a service mark of Charles River Laboratories, Inc. Sprague Dawley® is a registered trademark of Harlan Sprague Dawley, Inc. SD™ is a Harlan Sprague Dawley trademark. Fox Chase SCID® is a registered trademark of the Fox Chase Cancer Center. Fox Chase CB17™ is a trademark of the Fox Chase Cancer Center. HydroGel™ is a trademark of ClearH2O®. Immortomouse® is a registered trademark of the Ludwig Institute for Cancer Research. TARGATT™ is a trademark of Applied StemCell. Polymerase Chain Reaction (PCR) analysis is performed pursuant to licensing arrangements with Roche Molecular Systems, Inc. and The Perkin-Elmer Corporation. Microsatellite analysis is performed pursuant to licensing arrangements with the Marshfield Clinic. Purina #5008 is a trademark of Nestle Purina Petcare Company. Research Diets is a trademark of BioDAQ®. genOway is a registered trademark of genOway S.A. OpenArray® is a registered trademark of Biotrove, Inc. RODAC™ is a registered trademark of Becton, Dickinson and Company. TaqMan TaqMan® is a registered trademark of Roche Molelcular Systems, Inc.

Nothing in these terms and conditions should be construed as granting, by implication, estoppel, waiver or otherwise, any license or right of use to any Charles River trademark. Client will not use these, or any other Charles River trademark, for any purpose, including in any publicity, promotion, news release or other public disclosure without the prior written permission of Charles River, except, in each case, as may be required by law.

20. Privacy

The Charles River privacy policy can be found at https://www.criver.com/about-us/privacy-policy.

21. JAX® Mice

The sale by Charles River of JAX® Mice will be governed by the terms and conditions of The Jackson Laboratory, which can be found at https://www.jax.org/about-us/legal-information/terms-and-conditions-of-product-use-crl.

Contact our distributor

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