

Custom Production of Knockout Mouse

TRANS GENIC INC. create a gene Knockout Mouse customized to your order through a Gene Targeting method.



Characteristics

- 1. Granted Non-Exclusive License to Collectis' Homologous Recombination Technology:**
CELLECTIS SA has granted TRANSGENIC INC an non-exclusive license relating to a process for the specific replacement or insertion of a gene in a receiver genome by homologous recombination.
- 2. Intellectual property right attributes to clients:**
Clients are able to use knockout mice provided from Transgenic for their research on elucidation of gene functions and target gene identification without receiving the license from Collectis separately
- 3. Es cell line is C57BL/6(RENKA):**
129/Sv, BALB/c, TT2 are also available upon your request.
- 4. Cryopreservation services (optional):**
After producing knockout mice, we cryopreserve sperms and embryos upon your request.
- 5. Conditional knockout mouse production services:**
Custom production of conditional knockout mouse by RENKA ES cell line.



<Detail of works, supporting data and deliverables>

No.	Contents	Detail of works	Standard periods	Supporting data, deliverables
1	Analysis of gene structure	Research of genome data and specification of the location of objective gene based on the provided information (cDNA sequence, GeneID etc)	4 months	<ul style="list-style-type: none"> • Vector construction map • DNA sequence data • Electrophoresis data
2	Designing of vector	Designing of targeting vector		
3	Construction of vector	Construction of targeting vector based on genome sequence information		
4	Electroporation and screening	Introduction of vector into ES cells by electroporation, and screening by G418 resistant selection	4 months	• Colony numbers of G418 resistant ES cells
5	ES Clone analysis	Analysis of produced ES clone by PCR and/or Southern blot, to identify homologous recombinant clones		• PCR / Southern blot analysis data
6	Production of chimera mouse	Production of chimera mouse using micro injection method/aggregation method	2 months	• Data on produced chimera mice (numbers, coat color etc)
7	Confirmation of germline transmission	Confirmation of germline transmission by PCR and/or Southern blot analysis	3 months	• PCR / Southern blot analysis data
8	Production of hetero deficient mouse	Production of hetero deficient mouse and providing to customer		• Hetero deficient mouse
9	Cryopreservation of sperms and embryos	Cryopreservation of sperms and embryos on hetero deficient mouse	-	• Cryopreserved sperms/embryos

Please note that the time required is approximate and could change according to a experiment schedule.

For further information, please feel free to contact us.



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