C57BL/6-Tg(TcraTcrob)1100Mjb/J

Stock No: 003831 | OT-1

Transgenic

READILY AVAILABLE

PLACE ORDER

Sized to accommodate orders of up to 100 or more. Ask Customer Service for details.
Also Known As: OT-1

These mice contain transgenic inserts for mouse Tcra-V2 and Tcrb-V5 genes. The transgenic T cell receptor was designed to recognize ovalbumin peptide residues 257-264 (OVA_{257-264}) in the context of H2K^b (CD8 co-receptor interaction with MHC class I). This results in MHC class I-restricted, ovalbumin-specific, CD8^+ T cells (OT-I cells). That is, the CD8 T cells of this mouse primarily recognize OVA_{257-264} when presented by the MHC I molecule. Immune response dynamics can be studied by *in vivo* adoptive transfer or *in vitro* co-culture with cells transgenic for ovalbumin or by direct administration of ovalbumin. These mice are often used to study CD8^+ T cell response to antigen, positive selection, and in any research requiring CD8^+ T cells of defined specificity. Like most TCR transgenics, these mice are somewhat immunodeficient.

Donating Investigator

Dr. Michael J. Bevan, U. of Washington Medical Center
These OT-I mice contain transgenic inserts for mouse Tcra-V2 and Tcrb-V5 genes. The transgenic T cell receptor was designed to recognize ovalbumin residues 257-264 in the context of H2K^d 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.
Genotyping Protocols
QPCR: Tg(Tcrb)11Mjb-qPCR
Standard PCR: Tg(Tcrb)1100Mjb
Standard PCR: Tg(Tcra)1100Mjb
Standard PCR: Tg(Tcra)
Standard PCR: Tg(Tcrb)
QPCR: Tg(Tcra)11Mjb-qPCR

Genotyping resources and troubleshooting

Dietary Information
LabDiet® 5K52 formulation (6% fat)

Breeding Considerations

This strain is a good breeder.
Homozygous mice are viable and fertile. Homozygous and hemizygous mice may also be bred with C57BL/6J.

Additional Breeding and Husbandry Support

Mating System
Homozygote x Homozygote

Appearance
black

Related Genotype: a/a

Citation
When using the OT-1 mouse strain in a publication, please cite the originating article(s) and include JAX stock #003831 in your Materials and Methods section.

Animal Health Reports

Facility Barrier Level Descriptions

RB16 (Maximum)

Pricing & Availability

Sized to accommodate orders of up to 100 or more. Ask Customer Service for details.

Domestic

Pricing effective for USA, Canada and Mexico shipping destinations

Live Mouse

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