

ERL Mouse

Catalogue number: 151722

Sub-type: Mouse

Images:

Contributor

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Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: ERL Mouse

Alternate name:

Class:

Conjugate:

Description: A Conditional knockout mouse. Endogenous Cyp1A1 promoter driving Cre recombinase expression. Administration of 3-methylcholanthrene (3MC) results in expression of Cre recombinase and subsequent deletion of floxed P450 oxidoreductase (POR) in target organs (liver or liver and gut depending on 3MC dosage); may be used early in the drug development process to establish role of P450 activity in drug metabolism & disposition in vivo.

Purpose:

Parental cell:

Organism:

Tissue:

Model:

Gender:

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties:

Production details: Targeting carried out in C57BL/6 ES cells and line maintained by crossing with wild-type C57BL/6, ie CreCyp1a1-KI/+. Targeting strategy available on request.

Formulation:

Recommended controls:**Bacterial resistance:****Selectable markers:**

Additional notes: The mouse is a.k.a. Cre Cyp1a1-Knock-In mouse. The line is also maintained as heterozygous for the genetic alteration - it is important to note that one copy of the Cyp1a1 gene has been replaced with Cre recombinase, thus the line is also heterozygous for Cyp1a1 (although there are no apparent phenotypic consequences). However, should the line ever become homozygous for Cyp1a1-Cre, the mice would be homozygous null for Cyp1a1, and although such mice would be viable, they may have phenotypic consequences that might interfere and thus it is better to keep the line as heterozygous for Cyp1a1-Cre.

Target details

Target: P450 Oxidoreductase

Target alternate names:

Target background:

Molecular weight:

Ic50:

Applications

Application:

Application notes:

Handling

Format:

Concentration:

Passage number:

Growth medium:

Temperature:

Atmosphere:

Volume:

Storage medium:

Storage buffer:

Storage conditions:

Shipping conditions: Embryo/Spermatozoa- Dry Ice

Related tools

Related tools:

References

References: Arora et al. 2014. Immunity. 40(1):105-16. PMID: 24412610. ; A single subset of dendritic cells controls the cytokine bias of natural killer T cell responses to diverse glycolipid antigens. ; Invariant NKT cells promote CD8+ cytotoxic T cell responses by inducing CD70 expression on dendritic cells. ; Taraban et al. 2008. J Immunol. 180(7):4615-20. PMID: 18354184. ; Rowley et al. 2004. J Immunol. 172(10):6039-46. PMID: 15128787. ; Stimulation by soluble CD70 promotes strong primary and secondary CD8+ cytotoxic T cell responses in vivo.

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