

FH1 KO Mouse

Catalogue number: 151657

Sub-type: Mouse

Images:

Contributor

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Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: FH1 KO Mouse

Alternate name:

Class:

Conjugate:

Description: Germline mutations in the fumarate hydratase tumour suppressor gene predispose to leiomyomatosis, renal cysts, and renal cell cancer (HLRCC). Fh1-deficient mice develop renal cysts that have an activated hypoxia pathway, with overexpression of Hif1alpha and Hif2alpha. Hif targets, such as Glut1 and Vegf were also upregulated. Therefore the mouse may be useful for testing therapeutic interventions that target angiogenesis and HIF-prolyl hydroxylation.

Purpose:

Parental cell:

Organism:

Tissue:

Model: Knock-Out

Gender:

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties:

Production details: Following generation of the targeting construct, linearization, and electroporation into 129Sv/J ES cells, stable integrants were selected in 0.2 mg/ml Geneticin G418 medium.

Homologous recombinants were identified initially by PCR and subsequently by Southern blot analysis. Targeted ES cells were injected into C57/BL6 blastocysts. ES cell clones were screened for 50 and 30 site-specific genomic integration of the targeting construct using a PCR-based assay and LATaq (Takara). PCR genotypes to assay Flp- and Cre-mediated recombination, and genotyping of eFlp and Cre expression mice were carried out using standard conditions. For the genotyping of Fh1 to distinguish between wild-type, null, and floxed alleles, a common forward primer (50-GCTCAGTCACCCATCCAAAT-30) and differential reverse primers (50-ACCCTGCTAGGTGTCACCAC-30 and 50-CCTGGCACTGCAGACTACAA-30) were used

Formulation:

Recommended controls:

Bacterial resistance:

Selectable markers:

Additional notes:

Target details

Target: Fumarate Hydratase 1

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: Collins et al. 2010. Nat Methods. 7(3):219-23. PMID: 20139970. ; MAZe: a tool for mosaic analysis of gene function in zebrafish.

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