

RalGDS Floxed Mouse

Catalogue number: 153630

Sub-type: Mouse

Images:

Contributor

Inventor: Chris Marshall

Institute: The Institute of Cancer Research

Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: RalGDS Floxed Mouse

Alternate name: Friend Virus B, Ral Guanine Nucleotide Dissociation Stimulator, Ral Guanine Nucleotide Exchange Factor, RalGEF, RGF, KIAA138, RalGDS, RGDS

Class:

Conjugate:

Description: The knock-out mouse was developed by Chris Marshall at the ICR and used to demonstrate a significant role for RalGDS in Ras-dependent carcinogenesis in vivo. Lack of RalGDS resulted in reduced tumour incidence, size and progression to malignancy in multistage skin carcinogenesis, and reduced transformation by Ras in tissue culture. Experiments performed in cells isolated from skin tumours suggested that RalGDS mediates cell survival through the activation of the JNK/SAPK pathway. Mouse deficient in RalGDS (a member of the RalGEF family, which control the activity of the small GTPases RalA and RalB, and also have Ras binding domains).

Purpose:

Parental cell:

Organism:

Tissue:

Model: Conditional KO

Gender:

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties:

Production details: Mouse RalGDS genomic clones were obtained by screening a 129/SvJ BAC library. A targeting vector was designed using a DNA fragment extending from intron 7 to the 3'UTR, cloned into the pKO scrambler 901 vector. A neomycin cassette flanked by two loxP sites was cloned upstream of exon 16 and a 3rd loxP site was located in exon 8. The exons flanked by loxP sites comprise part of the catalytic domain of RalGDS and residues involved in the binding of the exchange factor to Ras. The construct was electroporated into RW4 ES cells and clones positive for recombination were then transiently transfected with pcrePac vector to eliminate the neomycin cassette. Cells carrying the RalGDS allele lacking exons 9-15 were injected into MF-1 blastocysts and germline-transmitting chimeric mice were obtained. As a result of Cre-mediate recombination, a RasGDS floxed allele in which loxP sites flank the exon 9-15 region was obtained.

Formulation:

Recommended controls:

Bacterial resistance:

Selectable markers:

Additional notes:

Target details

Target: RalGDS

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/Spermatoza- Dry Ice

Related tools

Related tools: RalGDS KO Mouse

References

References:

CancerTools.org