RalGDS KO Mouse

Catalogue number: 151632
Sub-type: Mouse
Images:

Contributor

Inventor: Chris Marshall
Institute: The Institute of Cancer Research
Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: RalGDS KO Mouse

Alternate name:

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: Knock-Out
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 (Incyte). A targeting vector was designed using a DNA fragment extending from intron 7 to the 3'UTR, cloned into the pKO scrambler 901 vector (Stratagene). 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 (Incyte) 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. Animals with a mixed MF-1/129SvJ background were used throughout. Intercrossing of RalGDS-/+ mice yielded the expected Mendelian ratios, indicating that no embryonic lethality had occurred. Moreover, RalGDS-/- male and female mice are fertile and no major defects in any organs studied have been observed.
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 Floxed Mouse

References

References: Noble et al. 2008. Mol Cell. 31(6):862-72. PMID: 18922468. ; CRAF autophosphorylation of serine 621 is required to prevent its proteasome-mediated degradation.