

IRF4 KO Mouse

Catalogue number: 154098

Sub-type: Mouse

Images:

Contributor

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Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: IRF4 KO Mouse

Alternate name: Interferon Regulatory Factor 4, Multiple Myeloma Oncogene 1, NF-EM5, LSIRF, MUM1, SHEP8

CancerTools.org

Class:

Conjugate:

Description: The transcription factor IRF4 is required for the generation of plasma cells from antibody producing B cells. This mouse model with conditional deletion of IRF4 in germinal centre B cells lack postgerminal centre plasma cells and are unable to differentiate memory B cells into plasma cells. Plasma cell differentiation required IRF4 as well as the transcriptional repressor Blimp-1, which both acted 'upstream' of the transcription factor XBP-1. In addition, IRF4-deficient B cells have impaired expression of activation-induced deaminase and lacked class-switch recombination, suggesting an independent function for IRF4 in this process. Knockout of the IRF4 allele was induced in germinal center- derived B cells by crossing with C1-Cre mice.

Purpose:

Parental cell:

Organism:

Tissue:

Model: Conditional KO

Gender:

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties:

Production details: The vector to target IRF4 was a derivative of pEASY-FLOX containing a phosphoglycerate kinase-neomycin-resistance poly(A) cassette, the herpes simplex virus thymidine kinase gene, two loxP sites, as well as two frt sites, a promoterless gene encoding eGFP in the opposite orientation, a triple simian virus 40 poly(A) site in inverse orientation generated by PCR and joining of the fragments, a phosphoglycerate kinase promoter in the opposite orientation, and multiple unique restriction sites for cloning Irf4 segments corresponding to the homology arms. Successively inserted into the cloning sites of the vector were three DNA fragments of the 129/Sv Irf4 locus comprising the following: 2.3 kb of the region upstream of the Irf4 promoter region; the Irf4 promoter region up to 300 bp downstream of exon 2 containing the translational start site; and 4.7 kb of the region downstream of exon 2. The linearized vector was electroporated into W9.5 embryonic stem cells derived from 129/SvEvTac. Chimeras were obtained after injection of the targeted embryonic stem cell clones into blastocysts derived from C57BL/6 mice

Formulation:

Recommended controls:

Bacterial resistance:

Selectable markers:

Additional notes:

Target details

Target: IRF4

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: Lia et al. 2012. Blood. 119(13):2981-90. PMID: 22174151. ; Functional dissection of the chromosome 13q14 tumor-suppressor locus using transgenic mouse lines.