

LnB5 TCR Tg mice

Catalogue number: 157679

Sub-type: Mouse

Images:

Contributor

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Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: LnB5 TCR Tg mice

Alternate name:

Class:

Conjugate:

Description: Tumor cells frequently escape from CD8+ T cell recognition by abrogating MHC-I antigen presentation. Deficiency in processing components, like the transporter associated with antigen processing (TAP), results in strongly decreased surface display of peptide/MHC-I complexes. A class of hidden self-antigens known as T cell epitopes associated with impaired peptide processing (TEIPP), which emerge on tumor cells with such processing defects can be investigated with this model. Using this mouse model, it is possible to investigate the generation of the TEIPP T cell repertoire specifically. These animals harbour rearranged receptors recognizing the TRH4/Db complex (named LnB5). Efficient selection of this TCR has been observed in the thymus, a strong CD8 skewing of the T cells, and high quantities of naive phenotype in the periphery. T cells have been reported to be readily activated by peptide vaccination and have showed to kill target cells efficiently. Author publication: PMID: 26784543

Purpose:

Parental cell:

Organism:

Tissue:

Model: Transgenic

Gender:

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties:

Production details: The LnB5 TCR transgenic mouse strain was generated by transgenesis of the TCRÎ² and TCRÎ³ genes of the LnB5 T cell clone, specific for the TRH4/DbÂ complex. Cloning and sequencing of the TCR chains identified the Î² chain as composed by TRAV9N-3*01 and TRAJ15*01 and the Î³ chain composed by V13-2*01, D1*01, and J1-4*02. TheÂ TcraÂ andÂ TcrbÂ chains were separately cloned into pCRII-TOPO plasmid vectors using reverse transcription PCR (RT-PCR). Validation of correct TCR cloning was performed by retroviral transduction of the TCR in C57BL/6 splenocytes using pMX vectors. Next, the 2 chains were separately cloned into VA-hCD2 vectors, the inserts of which were subsequently injected in C57BL/6 oocytes to produce transgenic mice.

(PMID:26784543)

Formulation:

Recommended controls:

Bacterial resistance:

Selectable markers:

Additional notes:

Target details

Target: LnB5 TCR

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: Doorduijn et al. 2018. Oncoimmunology. 7(3):e1382793. PMID: 29399388.

CancerTools.org