TECHNOLOGY OFFER

NCR1-iCreTg mice as tool to study NK-cells

Description:

NCR1-iCreTg mice were developed as tool to study natural killer cell development, biology and function.

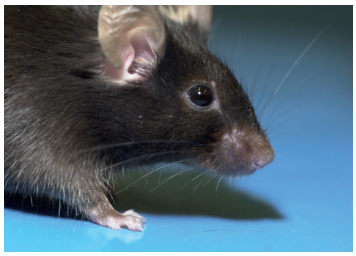
Natural killer (NK) cells are members of the innate immune system and represent a third lineage of lymphoid cells distinct from T and B lymphocytes. The flox/flox method was used to delete any gene of interest very specifically in NK cells for study of functional biological role(s) of that particular gene in vivo.

In particular, a transgenic mouse that expresses the Cre recombinase under the control of the Ncr1 (p46) was created. In these mice Cre-mediated recombination is tightly restricted to natural killer (NK) cells, as revealed by crossing Ncr1-iCreTg mice to the eGFP-LSLTg reporter strain. Therefore Ncr1-iCreTg mice are a powerful tool to study NK-cell development, biology and function. They could be used to investigate the role of specific gene deletions in NK cells for their biological function(s).

Advantages:

- Specific method to delete a “gene of interest” in NK cells
- Conditional mutagenesis in NK cells
- Model to study in vivo modified NK-cells

Publication: Blood. 2011 Feb 3;117(5):1565-73. A novel Ncr1-Cre mouse reveals the essential role of STAT5 for NK-cell survival and development. Eckelhart E et al. Institute of Pharmacology, Center of Physiology and Pharmacology, Medical University of Vienna, Vienna, Austria.



Collaboration:

- scientific interactions

Keywords:

- Natural killer cells
- Ncr1-iCreTg mice
- Recombination

Patents:

- no patent submitted

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