

List of next generation immunodeficient mice

NOG-IL2, IL15 (NOG-hIL-2, hIL-15 Tg)	
Strain name	NOD.Cg-Prkdc<scid> Il2rg<tm1Sug> Tg(CMV-IL2) Tg(CMV-IL15)/Jic
Strain description	Transgenic NOG mice that systemically express the human IL-2 gene and the human IL-15 gene. The maintenance period of mature NK cells derived from human peripheral blood is slightly extended.
Strain development	We constructed the transgene DNA containing the human IL-15 coding region, whose signal peptide sequence was replaced with those of the human IL-2 gene for improving secretion under the control of the CMV promoter. The fragment was microinjected into fertilized eggs of NOD-IL-2R γ (null) mice. Founder mice were backcrossed with NOG mice to obtain NOG-IL-15 Tg mice. NOG-IL-2/IL-15 double transgenic mice were produced by mating NOG-IL-15 Tg with NOG-IL-2 Tg mice in our facility.
Research application	It can be used as a human cancer immune model using human NK cells as an effector.
References	Katano I. et al. (2017) Long-term maintenance of peripheral blood derived human NK cells in a novel human IL-15- transgenic NOG mouse. Sci Rep. 2017 Dec 8;7(1):17230.
URL	https://pubmed.ncbi.nlm.nih.gov/29222435/
Remarks	-