

NOG-G-CSF KI (NOG-hG-CSF KI)	
Strain name	NOD.Cg-Prkdc<scid> Il2rg<tm1Sug> Csf3r<tm1(CMV-CSF3)>/Jic
Strain description	A knock-in NOG mouse that systemically expresses the human G-CSF gene and lacks the mouse G-CSF receptor gene. When human hematopoietic stem cells are transferred, human neutrophils differentiate into peripheral blood.
Strain development	A human G-CSF gene was placed downstream of the CMV promoter, a targeting vector incorporating the homologous sequence of the mouse G-CSF receptor gene was prepared, and homologous recombination into NOG mouse ES cells resulted in the hG-CSF gene being transformed into mouse G-CSF. Knock-in mice introduced into the CSF receptor region were prepared.
Research application	The model is to be applicable human neutrophil research such as bacterial infection study.
References	Ito R et al. (2022) Efficient differentiation of human neutrophils with recapitulation of emergency granulopoiesis in human G-CSF-knock-in humanized mice. Cell Rep. 2022 Dec 20;41(12)
URL	https://pubmed.ncbi.nlm.nih.gov/36543125/
Remarks	