

重度免疫不全 NSGマウス使用文献リスト



Humanized
NSG mice for
immunological research

Immunology : P1
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Haematological cancers : P25
Diabetes : P33
Stem cell / regenerative medicine : P34
Miscellaneous : P37

Immunology

Humanized immune system: hematopoiesis and stem cell engraftment

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Humanized immune system: T cell function

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Hydrodynamic tail vein injection of a plasmid encoding human IL-2 provides a novel model to study T reg cells, and demonstrates their involvement in prevent GVHD

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Humanized immune system: B cell function

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Humanized immune system: myeloerythroid lineages

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NSG as a superior host for human immune system components

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Utilizes hydrodynamic gene delivery to supplement developing human cells with human cytokines

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Pearson T; Greiner DL; Shultz LD. 2008. Creation of "humanized" mice to study human immunity. Curr Protoc Immunol May;Chapter 15:Unit 15.21. [PubMed: 18491294]

Highly recommended review that contains detailed, step-by-step protocols for reconstituting human immunity from stem cells and PBMCs

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Hematological cancers

Acute megakaryocytic leukemia (AMKL)

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Acute myeloid leukemia (AML)

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Leukemia cell line engraftment is optimized in NSG mice

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The NSGS variant promotes AML engraftment

Acute lymphoblastic leukemia (ALL)

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Shows that AML samples engraft NSG mice with higher efficiency and at lower concentrations than NOD scid

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Demonstrates Ruxolitinib efficacy in a patient-derived ALL model

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