Human Immune System
Engrafted Mice

PREDICTIVE TOOLS FOR TESTING NOVEL THERAPEUTICS
Human Immune System Engrafted Mice

The super immunodeficient CIEA NOG mouse® is the ideal model for engraftment of human hematopoietic stem cells, and therefore the model of choice for immune system engraftment.

NOG mice reconstituted with a variety of human tissues represent a valuable tool for basic research involving the human immune system. Engrafted NOG mice enable efficacy testing of immunotherapies as well as the unprecedented ability to study tumor specific immune cell activation.

Taconic offers study ready cohorts of hematopoietic stem cell engrafted NOG mice, as well as expert scientific consultation on use of the CIEA NOG mouse® for engraftment and reconstitution with human tissues.

APPLICATIONS FOR IMMUNE SYSTEM ENGRAFTED MICE

• Hematopoiesis and immune cell development
• Infectious disease and human-specific pathogens
• Efficacy testing of immunotherapy and checkpoint blocking antibodies
• Safety assessment for new therapeutics
• Transplantation and Graft vs Host Disease (GvHD)
• Vaccine development
• Inflammation and allergy
• Autoimmune disease

Models:
• huNOG: NOG engrafted with human hematopoietic stem cells (HSC)
• huNOG-EXL: NOG-EXL (hGM-CSF/hIL-3 NOG) engrafted with HSC
• huPBMC-NOG: NOG engrafted with human peripheral blood mononuclear cells (PBMC)

For additional information on these models, visit taconic.com/human-immune-system-engrafted-mice
TACONIC OFFERS
THREE IMMUNE SYSTEM
ENGRAFTED MODELS

**huPBMC-NOG**

NOG mice engrafted with human peripheral blood mononuclear cells (PBMCs)

- Model for investigation of adult/mature cell populations
- Use is limited to short term studies
- GvHD response can be used as a screening system for T cell modulation drugs
- Available with normal or patient derived PBMCs

**huNOG**

NOG mice engrafted with human CD34+ hematopoietic stem cells (HSCs)

- Stable engraftment of multiple cell lineages by 12-16 weeks post-injection
- Only mice with ≥25% hCD45+ in peripheral blood are delivered
- Long-term engraftment enables long-term studies

huNOG mice are available off-the-shelf! Place your order now for immediate delivery.

**huNOG-EXL**

NOG-EXL (hGM-CSF/hIL-3 NOG) mice engrafted with human CD34+ HSC

- Confirmation of stable engraftment with significant improvement in myeloid lineage reconstitution and overall cellularity
- Publications confirm the infiltration of myeloid cells into the tumor microenvironment and non-lymphoid tissues as well as the functionality of myeloid cells (ex. mast cells)
- Only mice with ≥25% hCD45+ in peripheral blood are delivered
- Long-term engraftment enables long-term studies

huNOG-EXL mice are available off-the-shelf! Place your order now for immediate delivery.

**DISCUSS YOUR NEEDS**

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Take Your Research Further

GEMs DESIGN
Taconic Biosciences Genetically Engineered Models (GEMs) Design empowers our clients to develop research models specifically suited to the unique needs of their discovery and development studies or therapeutic programs.
- Gene Inactivation
- Gene Mutation or Replacement
- CRISPR Gene Editing
- Transgene Expression
- miRNA Expression
- Cohort Production Packages

PRECISION RESEARCH MODELS
Research organizations demand precision tools that better reflect human physiology. Taconic Biosciences leads the field delivering innovative solutions to meet these continually evolving needs. Our core competencies include the delivery of complex strategies that both integrate human genetic sequences and engraft human cells and tissues into custom mouse and rat models.
- Human Gene Replacement
- Human Cell and Tissue Engraftment

GEMs MANAGEMENT
Taconic’s fully integrated GEMs Management brings innovative models from design to study-ready cohorts with unprecedented speed and transparency.
- Embryology
- Rapid Colony Expansion
- Contract Breeding
- Surgical Services
- Tissue Collection
- Genotyping and Molecular Analysis
- Microbiome and Germ-Free Research Models and Services

CHOOSE TACONIC
For more than 60 years, Taconic has anticipated the needs of the scientific community to deliver models and services that meet the diverse needs of biomedical and biopharmaceutical researchers.

Today that forward thinking and commitment to working collaboratively has resulted in a client-centric environment infused with a knowledge bank that allows you to select the optimum model for your study based on informed insight into the generation of genetically engineered mouse and rat models.

YOUR COLLABORATIVE PARTNER
As a full-service biosciences company, Taconic can help you acquire, test, develop, breed, cryopreserve, prepare, and distribute highly relevant research lines worldwide. Whether you require custom genetically engineered, cell or tissue engrafted models or traditional models, Taconic’s scientists will partner with you to rapidly and efficiently deliver the highest quality models.

TALK TO A SCIENTIST
Our scientific teams are happy to meet and talk with you about the most efficient way to achieve your study goals. Working in partnership with clients the world over, our scientific teams offer expert advice that can help you speed up your research and reduce your overall costs.

TALK TO A REPRESENTATIVE
For general information, you can talk to a member of our customer service team. Our customer service team is here to help you make the right decisions and get the models you need fast. Contact us at info@taconic.com

VISIT TACONIC.COM
For more information on the entire Taconic portfolio of products and services designed to help further your research, visit taconic.com