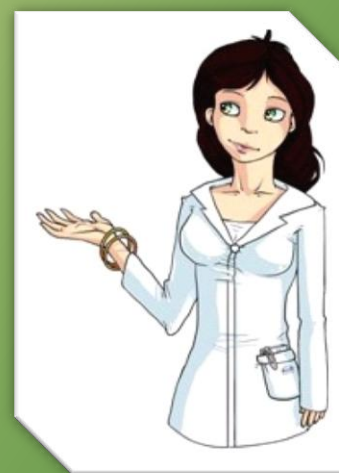
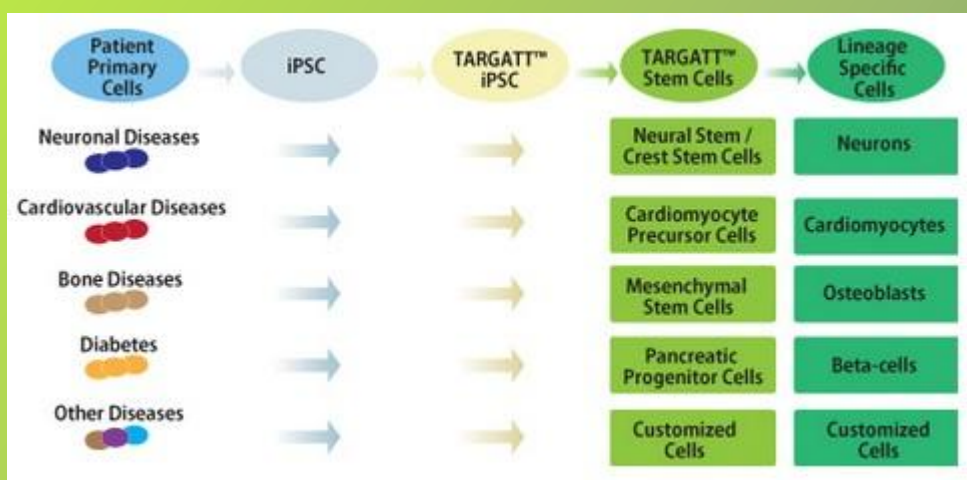


## TARGATT™ Human Disease Cell Line Products : disease models from primary cells made easy!

The TARGATT™ technology enables highly efficient site-specific gene integration in mammalian cells and animals. This technology uses PhiC31 integrase to insert any gene of interest into a docking site, pre-engineered in an intergenic, transcriptionally active genomic locus. The TARGATT™ technology improves several aspects in the generation of transgenic cell lines and animals:

- High integration efficiency mediated by PhiC31 integrase reduces time and cost
- Site-specific integration at a pre-selected genomic locus eliminates position effect and ensures high expression level of the transgene
- Integration at intergenic region ensures that no internal genes are interrupted
- Single-copy gene integration eliminates repeat-induced gene silencing and genomic instability
- Site-specific integration allows a precise comparison of the effects of the transgenes among different lines.



For more information: [www.gentaurpromo.com/Targatt/](http://www.gentaurpromo.com/Targatt/)

### Primary Cell, cDNA, RNA

We offer a wide range of normal and diseased primary cells as well as isolated RNA and corresponding cDNA. The Cell Lines include: Neurological Disorders, Oncogenic Disorders, Muscular Disorders, Genetic Disorders, Autoimmune Disorders, Endocrine Disorders, Congenital Disorders, Cardiovascular Disorders, Metabolic Disorders, Degenerative Disorders, Blood Disorders.

See below for our large variety of patient cells as well as mouse primary cells.

**Disease Human Primary Cells** : a variety of disease human primary cells (cDNA, RNA). Our patient cells range from patients with autoimmune disorders to neurological disorders.

**Normal Human Primary Cells** : a variety of normal human primary cells, cDNA, RNA.

**Mouse Primary Cell** : Mouse Primary Cell: Mouse Aortic Smooth Muscle Cells.

### Virus Production : Virus Titer-Enhancer Reagent

Virus Titer-Enhancer Reagent is a novel cocktail of small molecules that can enhance viral production and is a powerful, broadly applicable reagent for effective virus packaging. It stably regulates the viral RNA packaging on the transcriptional level, which can greatly enhance production of either retro- or lenti-viral particles up to 10 fold. The easy-to-use protocol makes Virus Titer-Enhancer Reagent well-suited for various scales of virus packaging.

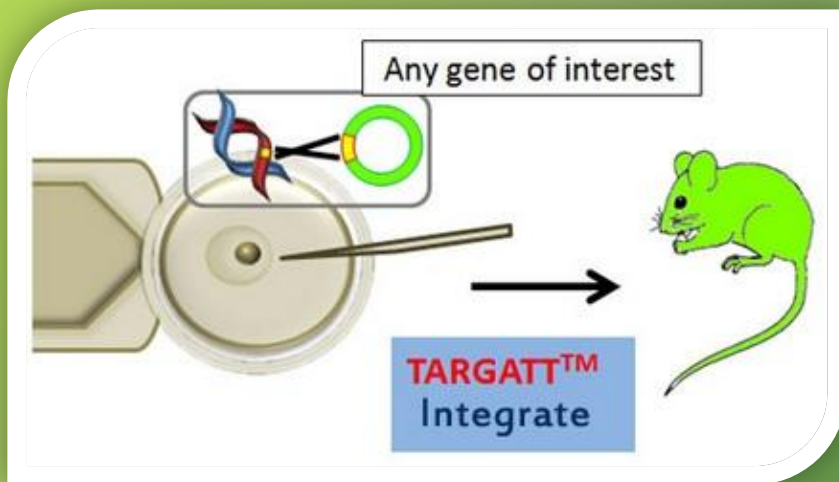
We offer a large array of products for site specific transgenics, cell culture, and stem cell research. Our products encompass a wide spectrum, from: high quality transgenic kits for knock-in mice and knock-out mice generation, mouse embryonic fibroblast (MEF cells), feeder cells, growth factors, options for stem cell characterization and stem cell differentiation, as well an array of iPSC cells.

## Embryos

Our site-specific DNA integration system **TARGATT™** lets you create site-specific transgenic mice in a more efficient and faster way compared to traditional methods.

The H11 and ROSA26 **TARGATT™ Embryos** are derived from our genetically engineered **TARGATT™** transgenic mouse. These mouse embryos can be used to set up your own **TARGATT™** mouse colony (H11 or ROSA26).

To create your knock-in mouse model you will need a **TARGATT™ Transgenic Kit** in addition to **TARGATT™ Embryos**.



## MEF Feeder Cells

Mouse Embryonic Fibroblast (MEF) cells for human and mouse ES/iPS cell culture (and other applications). Available lines: CF-1, DR4, Neo and SNL (STO) feeder cells.

## Medium

**Stem Cell Research - Human** : Culture and Differentiation Media

**Stem Cell Research - Mouse/Rat** : Ready-to-use media formulations for mouse and rat ESC and iPSC culture

**Human Primary Cell Media** : Stromal Medium, Muscle Medium, Epithelial Pro-Conditioned Medium, Cardiomyocyte Maintenance Medium, Osteoblast Medium

**Mouse Primary Cell Media** : Mouse Aortic cells Culture Medium

## Cytokines

Stem Cell Growth Factors and Differentiation Factors for Reprogramming and Stem Cell Expansion, Stem Cell Generation, Stem Cell Differentiation and Stem Cell Characterization.



## TGF-beta

Human/Mouse Recombinant Proteins: Activin A

Human Recombinant Proteins: BMP-4, BMP-7, Noggin, TGF-beta 1

## Others

Human Recombinant Proteins: bFGF, beta-NGF, EGF, EPO, GM-CSF, INF-alpha, IGF-I Long R3, Insulin, IL-2, M-CSF, TNF-alpha

## Wnt Pathway

Human Recombinant Proteins: DKK-1, Frizzled-5 Fc Fusion, Frizzled-8 Fc Fusion, SFRP5, Wnt-3a, Wnt-5a

Antibodies: Anti-Wnt-3a (h/m), Anti-Wnt-5a(h/m)

## Notch Pathway

Small Molecules: DAPT

## Hedgehog Pathway

Human Recombinant Proteins: Sonic Hedgehog

## 3-D Plates

The NANEX™ Hematopoietic Stem/Progenitor Cell (HSPC) Expansion Kit is designed for the ex vivo expansion of human bone marrow, peripheral blood, and umbilical cord blood-derived HSCs/HPCs.

## Fetal Bovine Serum (FBS)

We offer two grades of high-quality fetal bovine serum (FBS): **Embryonic Stem Cell-qualified FBS** and **Germline Transmission-tested FBS**.

## iPSC Generation (Retrovirus)

Our Retrovirus iPS Cell Generation Kit is ready to use – just thaw the vials and add the contents to your cells.

## Stem Cell Characterization

Characterization of embryonic stem cells (ESC) and induced pluripotent stem cells (iPSC) by pluripotency protein or RNA marker kits and stem cell gene arrays.

**Pluripotency Markers (Protein)** : Ready-to-use Pluripotency Marker Kits and reagents

**Pluripotency Markers (mRNA)** : RT-PCR Pluripotency Marker Kits to confirm the pluripotency of ESC and iPSC lines with well established pluripotency markers.

**Stem Cell Array** : Stem Cell related Gene Arrays (miRNA, TF, cDNA and gene expression).

**Components** : Individual components including solutions and secondary antibodies for our stem cell characterization kit.

## Stem Cell Differentiation

Solutions for embryonic stem cell (ESC) and induced pluripotent stem cell (iPSC) differentiation, including human neural stem cell, dendritic cell and endothelial differentiation kits.

## Stem Cell Lines

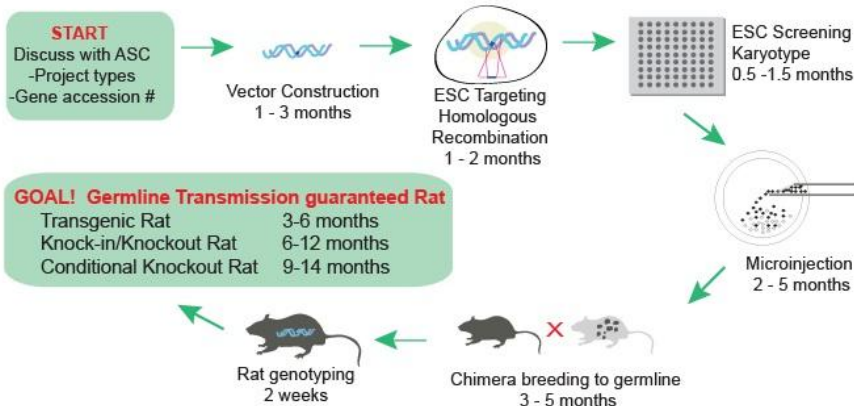
**Mouse ESC and Human iPSCs** : generated by retrovirus vectors or episomal expression of reprogramming factors.

We offer a large array of services related to stem cell characterization, transgenic knock-in and knock-out mice, gene targeting, teratoma formation, embryoid body (EB) formation, custom cell line generation, ES/iPS cell generation and differentiation.



### Full KO/KI Rat Model Generation Service Includes:

1. Vector Construction
2. ESC Targeting
3. Cre/FLP recombination
4. Chimera Production via blastocyst injection
5. Chimera breeding to germline
6. Rat genotyping



- **TARGATT™** Knock-in Mouse (3-months)

Just submit the gene ID# and we will ship your site-specific knock-in mice as fast as 3 months using our patented TARGATT™ knock-in mice service.

- **TARGATT™** Knock-down Mouse

We generate your *in vivo* shRNA Knock-down Mouse models of choice using our TARGATT™ Technology. Get your knock-down mouse as fast as 3 months!

- Knock-in / Knock-out Mouse (7-months)

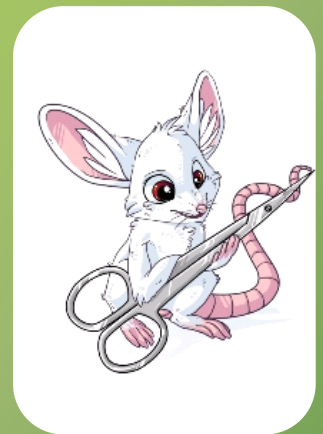
Conventional knock-in and knock-out mouse generation service by homologous recombination.

Random Transgenic Mouse

Service to generate transgenic mice by random insertion

Knock-in and Knock-out Rat

New service for the generation of gene targeted rat models by homologous recombination



## Cell Line Models

- **TARGATT™** Gene Insertion

Gene knock-in in mammalian cell lines using TARGATT™ Technology. Get your transgenic cell line in 3 months!

- Cell Line Gene Modification

Gene targeting to generate transgenic mammalian cell lines including knock-out lines, gene editing and gene replacement.

## Stem Cell Services

- Stem Cell Derivation

- Stem Cell Culture Services

- Stem Cell Characterization

- Stem Cell Differentiation

