

PXB-Mouse®



What is a PXB-Mouse?

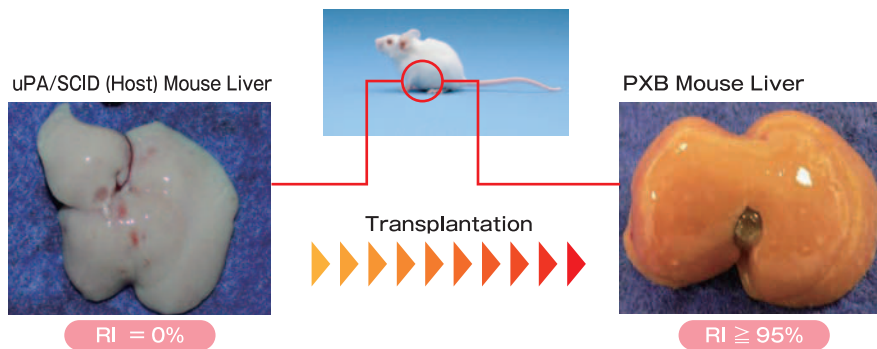
- 1) A chimeric mouse with a liver replaced by over 70% with human hepatocytes
- 2) Has histologically normal liver constitution and human albumin secretion
- 3) Transporters and human metabolic enzymes are expressed in the liver
- 4) Can be infected with human hepatitis viruses (HBV/HCV)

PXB Mouse as a drug discovery and research tool

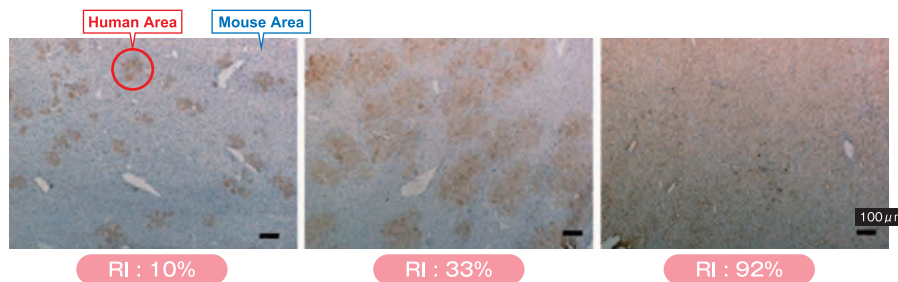
- 1) DMPK studies
- 2) Safety studies
- 3) Anti-hepatitis viral studies (HBV/HCV)

Liver transformation overview

Human hepatocytes are transplanted to the host mice leading to repopulation of the liver by human hepatocytes



Proliferation of Human Hepatocytes in the Mouse Liver
Immunostaining with Human-Specific Cytokeratin 8/18 Antibodies



Provided by the Yoshizato Project, CLUSTER, Prefectural Institute of Industrial Science

PXB-Mouse® production - Quality control

Only the mice that meet all these criteria are used for studies as PXB-Mice

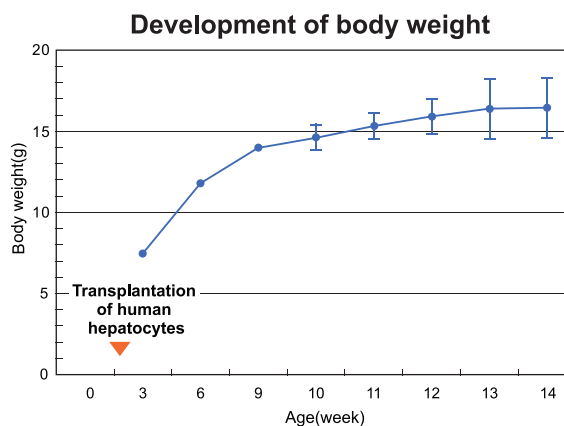
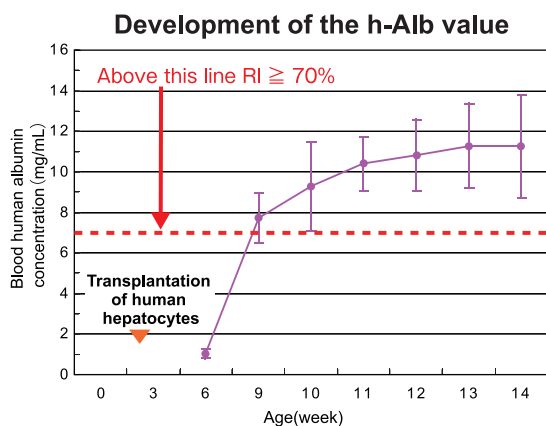
(at Study Start)

Age	10 to 14 weeks
Body weight	≥ 12g
h-Alb (Human albumin in mouse blood)	≥ 7.0mg/mL* (Estimated Replacement Index ≥ 70%)

* The h-Alb value may vary according to the hepatocyte donor lot

Human albumin in the blood and body weight of the PXB-Mouse®

The human albumin and body weight change in the PXB-mice become stable after 10 weeks



PXB-Mouse® production and study service capacity

PhoenixBio has the necessary production and study service facilities together with a stable and constant production supply for the services it provides

Facilities

Clean room for breeding colony
Clean room for transplantation colony
Regular study room
Infectious study room

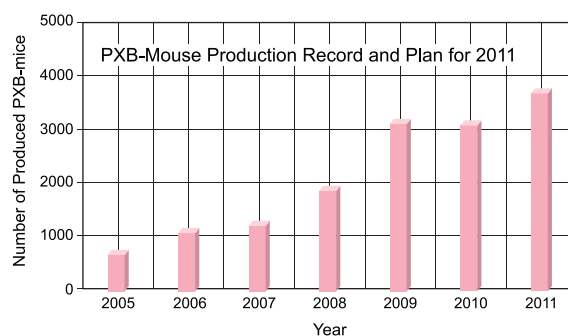


Production Capacity

Maximum capacity : 400 PXB-mice/Month
Current production rate : 200 to 250 PXB-mice/Month

Production Numbers and Study Record

Production volume : ca. 3,000 PXB-mice (year 2010)
Number of studies : ca. 100 studies/Year (including collaboration studies)



Applications for drug discovery and development

DMPK Studies

- Profiling of Human Specific Metabolites
- Prediction of Human Pharmacokinetics
- Biliary Excretion Studies
- Drug-drug Interaction
- Enzyme Induction/Inhibition
- Lipid Metabolism Studies

Safety Studies

- Direct Hepatotoxicity (Blood Biochemical and Histopathological Assays)
- Toxicogenomics
- Detection of Reactive Metabolites
- Peroxisome proliferation

Anti-Hepatitis Studies (HBV/HCV)

- Prophylactic Activity of anti-HBV and HCV Agents
- Efficacy of anti-HBV and HCV Agents
- Evaluation of Infection and Replication of HBV and HCV

Contact Information



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