ENVIGO

Genetically engineered models (GEMS)

Oat1 knockout rat

Model	Oat1 knockout rat
Strain	HsdSage:SD- Slc22a6^{tm1Sage}
Location	U.S.
Availability	Cryopreserved

Zygosity genotype

+ Cryopreserved as homozygous embryos

Research use

+ Drug transport
+ Drug-drug interactions
+ Drug metabolism
+ Hepatotoxicity

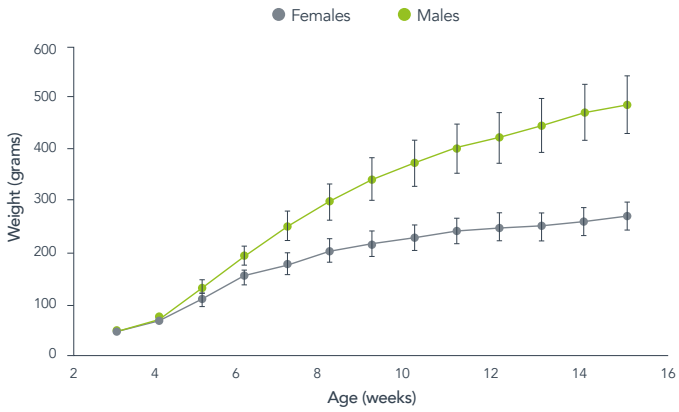
Origin

The Oat1 knockout rat model was originally created at SAGE Labs, Inc. in St. Louis, MO and distributed out of the Boyertown, PA facility. The line continues to be maintained through the original SAGE Labs animal inventory acquired by Envigo.

Description

This model contains a biallelic deletion of the organic anion transporter 1 (OAT1), also known as solute carrier family 22 member 6 (SLC22A6). Oat1 plays a central role in renal organic anion transport. Along with Oat3, Oat1 mediates the uptake of a wide range of relatively small and hydrophilic organic anions from plasma into the cytoplasm of the proximal tubular cells of the kidneys – making this a useful model for studying drug-drug interactions, toxicity, and metabolism in the liver.

Figure 1: Age and weight chart



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