Ppara knockout rat

Model	Ppara knockout rat
Strain	HsdSage:SD-*Ppara*^{tm1Sage}
Location	U.S.
Availability	Live colony

Characteristics/husbandry

+ Homozygous knockout rats exhibit complete loss of p75NTR protein

+ p75NTR knockout rats show hyposensitivity to thermal pain via hot plate assay

+ p75NTR knockout rats show increased reactivity to touch in a functional observational battery (Irwin)

+ Background strain: Sprague Dawley

Zygosity genotype

+ Homozygous

Research use

+ Lipid metabolism
+ Diabetes
+ Obesity
+ Cell proliferation
+ Wound healing
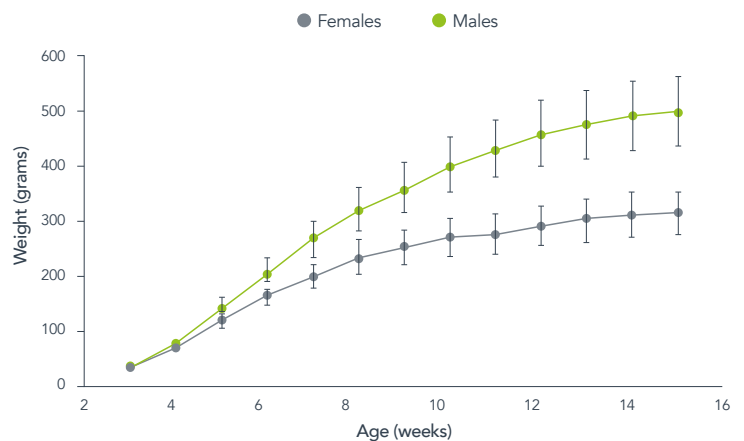+ Inflammation/Autoimmune disorders

Origin

The Ppara KO 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 bi-allelic deletion within the peroxisome proliferator-activated receptor alpha gene (Ppara).

Ppara (peroxisome proliferator-activated receptor alpha gene) is a ligand activated nuclear receptor, known to be activated by free fatty acids and their derivatives. Besides the studying of lipid metabolism and diabetes, Ppar-alpha affect the expression of target genes involved in cell proliferation, cell differentiation, and in immune and inflammation responses.

Figure 1: Age and weight chart

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