



mGluR5 knockout rat

Model	mGluR5 knockout rat
Strain	HsdSage:SD-Grm5 ^{tm1Sage}
Location	U.S.
Availability	Cryopreserved

Characteristics/husbandry

- + Knockout rats exhibit complete loss of target protein as demonstrated by Western blot
- + mGluR5 is implicated in the neuropharmacology of cognition, anxiety, addiction and pain
- + The function of this receptor is altered in Fragile X syndrome
- + mGluR5 antagonists are being pursued as potential therapeutics for Fragile X syndrome and autism spectrum disorders
- + Background strain: Sprague Dawley

Zygosity genotype

- + Cryopreserved as heterozygous embryos

Research use

- + Autism
- + Fragile X syndrome
- + Cognition
- + Schizophrenia
- + Anxiety
- + Pain

Origin

The mGluR5 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 biallelic deletion of the metabotropic glutamate receptor 5 (mGluR5 or Grm5). mGluR5 function is altered in Fragile X syndrome, and mGluR5 has emerged as a promising drug target for both Fragile X syndrome and autism spectrum disorders.

Figure 1: mGluR5 knockout rats lack mGluR5 protein as determined by Western blot. Actin bands demonstrate equal sample loading.

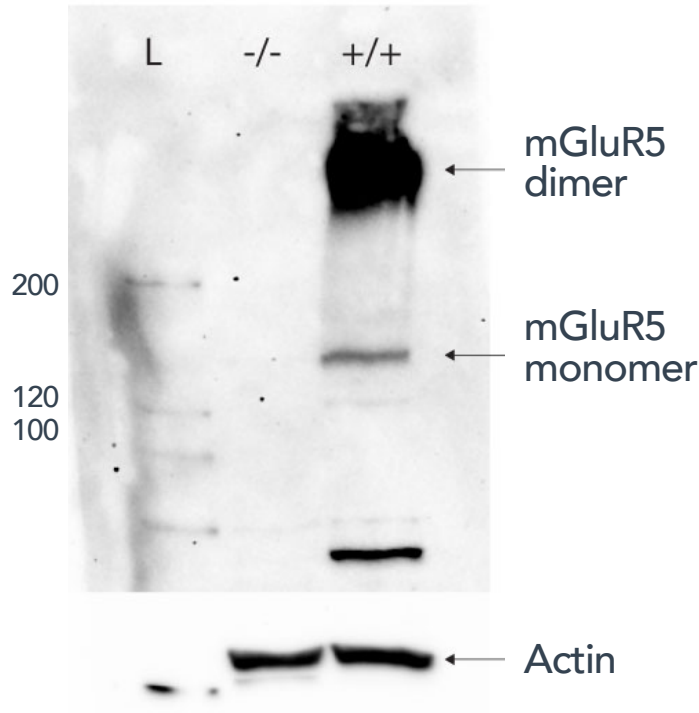
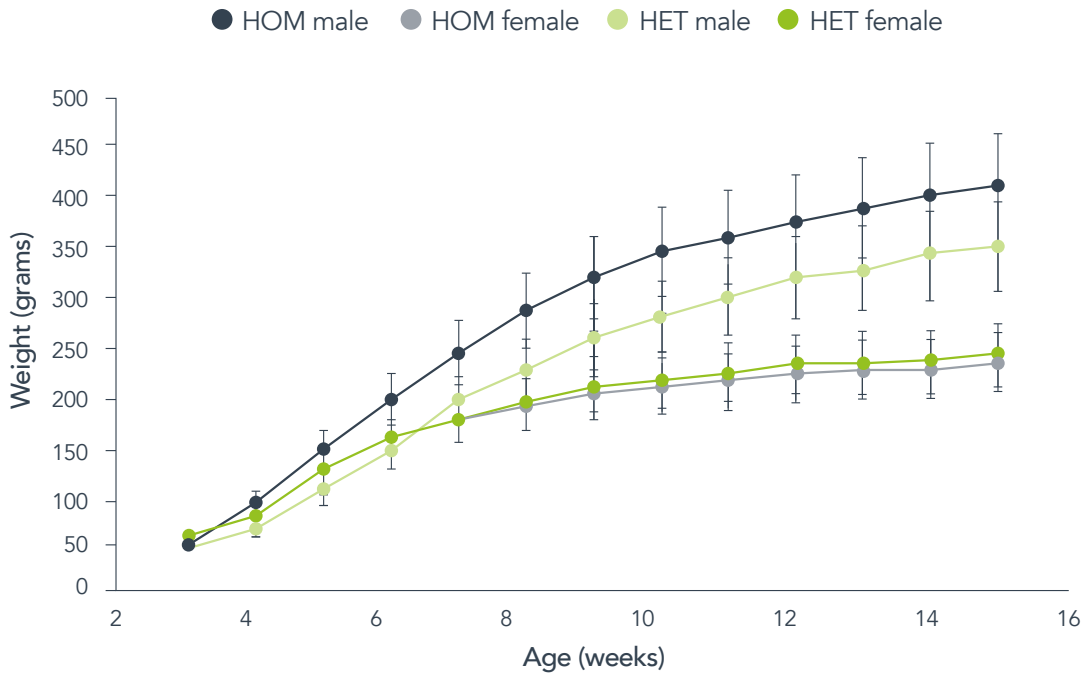


Figure 2: Weight and age comparison chart



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