ENVIGO

Genetically engineered models (GEMS)

Cacna1c knockout rat

Model	Cacna1c knockout rat
Strain	HsdSage:SD- Cacna1c^{tm1Sage}
Location	U.S.
Availability	Cryopreserved

Characteristics/husbandry

+ Background Strain: Sprague Dawley

Zygosity genotype

+ Cryopreserved as heterozygous embryos

Research use

+ Autism
+ Timothy syndrome
+ Long QT syndrome
+ Schizophrenia
+ Bipolar disorder

Origin

The Cacna1c 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 deletion of the 1c subunit of the L-type voltage-gated calcium channel CACNA1C.

Cav1.2 is an L-type voltage-gated calcium channel encoded by the Cacna1c gene. Mutations in Cav1.2 result have been associated with schizophrenia, bipolar disorder, and most notably, Timothy syndrome. Timothy syndrome is associated with long QT syndrome, heart arrhythmias, neurological impairment, and autism.

Contact us

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