



Genetically engineered models (GEMS)

Dopamine Transporter DAT-Cre knockin rat

Model	Dopamine Transporter DAT-Cre knockin rat
Strain	HsdSage: LE-Slc6a3tm1(Dat-cre)Sage
Location	U.S.
Availability	Live colony

Characteristics/husbandry

- + Cre recombinase driven by endogenous DAT promoter
- + No observed ectopic expression of cre
- + Targeted insertion eliminates possible gene disruption that may occur in random insertion technologies such as BAC
- + Background strain: Long Evans Hooded

Zygosity genotype

+ Homozygous

Research use

- + Optogenetics
- + DREDD
- + Expression/knockout of floxed genes

Origin

The Dopamine Transporter DAT-Cre KI 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 expresses cre-recombinase under the control of the endogenous dopamine transporter promoter enabling specific expression in dopaminergic neurons. This model possesses a targeted insertion of (IRES)-cre immediately after the translational stop in the open reading frame of DAT. The DAT-Cre rat is useful for applications requiring tissue specific expression, including optogenetics and breeding with transgenic floxed lines.

