



Genetically engineered models (GEMS)

Parvalbumin-Cre knock-in rat

Model	Parvalbumin-Cre knock-in rat
Strain	HsdSage:LE-Pvallbtm1(IRES-Cre)Sage
Location	U.S.
Availability	Live colony

Characteristics/husbandry

- + Specific expression of floxed constructs in inhibitory neurons
- + Cre recombinase driven by endogenous Paravalbumin promoter
- + No observed ectopic expression of cre
- + Targeted insertion eliminates possible gene disruption that may occur in random insertions such as BAC
- + Background Strain: Long Evans Hooded

Diet

+ LabDiet PMI PicoLab Rodent Diet 20 (Irradiated)

Zygosity genotype

+ Homozygous

Research use

- + Optogenetics
- + Expression/knockout of floxed genes

Origin/description

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

