

Strain Name: B6129P2-*Hprt1*^{tm5(EGFPCre;mEMS669Ems)}

Chimeras were generated using mEMS669*, mEMS673, mEMS680 and mEMS682

* Strain has gone Germline

Strain Detail

Type: Pleiades Promoter Project MiniPromoter Strain
Mating System: Heterozygote x Inbred (F N1 x M - current breeding system)
 Inbred x Hemizygote (F x M N2+ - future)
Species: laboratory mouse
Investigator: Elizabeth M. Simpson, CMMT, UBC
Generation: N2 hemizygous male (7-May-08)

Appearance

black

Related Genotype: *a/a*

Strain Description

This transgenic mouse strain has an ‘enhanced’ GFP (EGFP), Cre, NLS (nuclear localization signal) (EGFPCreNLS) fusion protein with no promoter driving expression – promoters can be introduced at the multiple cloning site (MCS). Please refer to pEMS1302 PDF and pEMS1302 Vector NTI files for further information.

Strain Development

pEMS1302 was electroporated into mEMS1204 (B6129F1-*Gt(ROSA)26Sor*^{tm1Sor/+}, *Hprt1*^{b-m3/Y}) embryonic stem cells (ESCs), and positive constructs were microinjected into ICR (CD-1 022 Charles River) and/or B6(Cg)-*Tyr*^{c-2J/J} (JAX Stock#000058). Resulting chimeras were bred to B6(Cg)-*Tyr*^{c-2J/J} females, and germline N1 progeny identified by the presence of the *Tyr*⁺ allele in combination with the *A^w* (agouti, white belly) and *a* (non-agouti/black) coat color alleles. N1 female heterozygous carriers are mated to C57BL/6J (JAX Stock#000664), and N2 hemizygous male progeny are identified by PCR.

Gene & Allele Details

Allele Symbol: *Hprt1*^{tm5(EGFPCre;mEMS1504)Ems}
Allele Name: *Hprt1* targeted mutation #5, EGFPCre promoterless, derived from ESC mEMS669, Elizabeth M. Simpson
Common Name(s): *Hprt1*, mEMS669, pEMS1302 promoterless
Mutation Made By: Pleiades Promoter Project

Strain of Origin: 129Ola/Hsd (from E14TG2a)
ES Cell Line Name: mEMS1204
ES Cell Line Strain: (B6-*Hprt1*^{b-m3}/J x 129S1/SvImJ-*Gt(ROSA)26*^{tm1Sor})F1
Gene Symbol and Name: mEMS669
Chromosome: X
Strain of Origin: derived from B6-*Hprt1*^{b-m3} (E14TG2a)
Site of Expression: Expression is seen throughout the brain
Expressed Gene: **ADD CRE!**GFP, Green Fluorescent Protein, jellyfish Green Fluorescent Protein (*GFP*), derived from the jellyfish *Aequorea victoria*, is a versatile reporter molecule which has found use in many biological applications. The original molecule has been modified in order to enhance its fluorescence intensity (*EGFP*, enhanced GFP). When utilized in a transgenic construct, tissue expressing sufficient amounts of GFP will fluoresce when exposed to a 488 nm light source.
Promoter: N/A - promoterless

Control Information

Control:

Wild-type from the colony

Genotyping Protocols

See pEMS1302 genotyping assay

Colony Maintenance

Breeding & Husbandry: Chimera x B6-*Tyr*^{c-2J} (B6-Alb) females generating N1 heterozygous females. N1 heterozygous females are mated to C57BL/6J males generating N2 hemizygous males. N2 Hemizygous males are mated to C57BL/6J females to generate hetero/hemizygous N3 progeny. Expected coat color from breeding: Black.

Animal Health Reports

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