

Strain Name: B6.129P2-*Hprt1*^{tm28 (Ple77-EGFP/cre/NLS)Ems}

Chimeras were generated using mEMS554*, mEMS555, mEMS562 and mEMS567

* Strain has gone germline

Strain Detail

Type: Pleiades Promoter Project MiniPromoter Strain
Mating System: 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 breeding system)
Species: laboratory mouse
Investigator: Elizabeth M. Simpson, CMMT, UBC
Generation: N2 hemizygous male (9-June-09)

Appearance

black

Related Genotype: *a/a*

Strain Description

This transgenic mouse strain has an ‘enhanced’ GFP/cre (EGFP/cre) fusion protein under the control of the Ple77 MiniPromoter. Please refer to MiniPromoter design construct file for further information.

Strain Development

pEMS1057 was electroporated into mEMS21 (E14TG2A) embryonic stem cells (ESCs), and positive constructs were microinjected into C57BL/6J (JAX Stock#000664). Resulting chimeras were bred to C57BL/6J females, and germline N1 progeny identified by the presence of the *A^w* (agouti, white belly) coat color allele. N1 female heterozygous carriers are mated to C57BL/6J, and N2 hemizygous male progeny are identified by PCR.

Gene & Allele Details

Allele Symbol: *Hprt1*^{tm28(Ple77-EGFP/cre/NLS)Ems}
Allele Name: *Hprt1* targeted mutation #28, Ple77 MiniPromoter driving, EGFP/cre/NLS , Elizabeth M. Simpson
Common Name(s): Ple77, *Hprt1*
Mutation Made By: Pleiades Promoter Project
Strain of Origin: 129Ola/Hsd (from E14TG2a)
ES Cell Line Name: mEMS21
ES Cell Line Strain: (B6-*Hprt1*^{b-m3}/J x 129S1/SvImJ-*Gt(ROSA)26*^{tmlSor})F1

Gene Symbol and Name: Ple77
Chromosome: X
Strain of Origin: derived from B6-*Hprt1*^{b-m3} (E14TG2a)
Site of Expression: Expression is seen throughout the brain
Expressed Gene: EGFP/cre fusion
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.
cre, cre recombinase, P1 bacteriophage
cre, derived from P1 bacteriophage is a topoisomerase that catalyzes site-specific recombination of DNA between loxP sites. When utilized in a transgenic construct, and in concert with a floxed reporter allele (e.g. *Gtosa26*^{tm1Sor} allele (from JAX stock#003309)), the tissue/cellular expression pattern of the transgene can be assessed.
Promoter: Ple77

Control Information

Control:
Wild-type from the colony

Genotyping Protocols

See Ple77 Genotyping Assay File

Colony Maintenance

Breeding & Husbandry: Chimera x C57BL/6J (B6) 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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