

**Strain Name:** B6129P2-*Hprt1*<sup>tm14(Ple103-EGFP/cre/NLS)Ems</sup> (HAP1-A)

Chimeras were generated using mEMS675\*, mEMS676, mEMS689 and mEMS1031

\* 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 N4 x M - current breeding system)  
**Species:** laboratory mouse  
**Investigator:** Elizabeth M. Simpson, CMMT, UBC  
**Generation:** N5 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 Ple103 MiniPromoter. Please refer to MiniPromoter design construct file for further information.

### **Strain Development**

pEMS1083 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<sup>w</sup>* (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*<sup>tm14(Ple103-EGFP/cre/NLS)Ems</sup>  
**Allele Name:** *Hprt1* targeted mutation #14, derived from Ple103 MiniPromoter, Elizabeth M. Simpson  
**Common Name(s):** Ple103, *Hprt1*  
**Mutation Made By:** Pleiades Promoter Project  
**Strain of Origin:** 129Ola/Hsd (from E14TG2a)  
**ES Cell Line Name:** mEMS21 (E14TG2a)  
**ES Cell Line Strain:** (B6-*Hprt1*<sup>b-m3</sup>/J x 129S1/SvImJ-*Gt(ROSA)26*<sup>tm1Sor</sup>)F1  
**Gene Symbol and Name:** Ple103

Chromosome: X  
Strain of Origin: derived from B6-*Hprt1*<sup>b-m3</sup> (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. *Gtrosa26*<sup>tm1Sor</sup> allele (from JAX stock#003309)), the tissue/cellular expression pattern of the transgene can be assessed.  
Promoter: Ple103

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### **Control Information**

**Control:**  
Wild-type from the colony

### **Genotyping Protocols**

See Ple103 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 and heterozygous females. N2 Hemizygous males or heterozygous females are mated to C57BL/6J females or males, respectively, to generate hetero/hemizygous N3 progeny. Expected coat color from breeding: Black.

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### **Animal Health Reports**

Upon Request