

mEMS1600 (pEMS1306+CAG) ESC derivation

pEMS1157 (pEMS1306+CAG) was electroporated into mEMS1204 (B6129F1-*Gt(ROSA)26Sor^{tm1Sor/+}*, *Hprt1^{b-m3}/Y*) embryonic stem cells (ESCs) generating positive constructs (identified by PCR – see CAG pEMS1157 genotyping assay).

mEMS1561, mEMS1589, mEMS1590 and mEMS1600 were identified as correctly targeted ESC lines.

These ESC lines were microinjected into ICR (CD-1 022 Charles River) and/or B6(Cg)-*Tyr^{c-2l}/J* (JAX Stock#000058). Resulting chimeras were bred to B6(Cg)-*Tyr^{c-2l}/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.

The pEMS1306+CAG strain (B6129P2-*Hprt1^{tm2(CAG-EGFP;mEMS1600)Ems}*) was established from the mEMS1600 ESC line (see mEMS1600 (pEMS1306+CAG) Mouse description file).