mEMS2084 (pEMS1307+CAG) ESC derivation

pEMS1277 (pEMS1307+CAG)was electroporated into mEMS1218 (B6129F1-*Gt(ROSA)26Sor*^{tm1Sor}/+, *Hprt1*$^{b\text{-}m3}$/Y) embryonic stem cells (ESCs) generating positive constructs (identified by PCR – see pEMS1157 genotyping assay).

mEMS2077, mEMS2079 and mEMS2084 were identified as correctly targeted ESC lines.

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

The pEMS1307+CAG strain (B6129P2-*Hprt1*$^{tm3(CAG\text{-}EGFP;mEMS2084)Ems}$) was established from the mEMS2084 ESC line (see mEMS2084 (pEMS1307+CAG) Mouse description file).