

Tfam-Flox

Nomenclature	C57BL/6Smoc- <i>Tfam</i> ^{tm1(flox)Smoc}
Cat. NO.	NM-CKO-200173
Strain State	Repository Live

Gene Summary

Gene Symbol Tfam	Synonyms	Hmgt5; mtTFA; tsHMG; AI661103
	NCBI ID	21780
	MGI ID	107810
	Ensembl ID	ENSMUSG000000003923
	Human Ortholog	TFAM

Model Description

These mice carry loxP sites flanking exon 10-13 of *Tfam* gene. When crossed with a Cre recombinase-expressing strain, this strain is useful in eliminating tissue-specific conditional expression of *Tfam* gene.

Research Application: Activated PKN1 stimulates the transcription of AR (androgen receptor) regulatory genes KLK2 and KLK3 and related research on mitochondrial gene expression
 *Literature published using this strain should indicate: *Tfam*-Flox mice (Cat. NO. NM-CKO-200173) were purchased from Shanghai Model Organisms Center, Inc..

Disease Connection

Parkinson's Disease	Phenotype(s)	MGI:3702932 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with <i>Slc6a3</i> -cre mice.
	Reference(s)	Ekstrand MI, Terzioglu M, Galter D, Zhu S, Hofstetter C, Lindqvist E, Thams S, Bergstrand A, Hansson FS, Trifunovic A, Hoffer B, Cullheim S, Mohammed AH, Olson L, Larsson NG, Progressive parkinsonism in mice with respiratory-chain-deficient dopamine neurons. Proc Natl Acad Sci U S A. 2007 Jan 23;104(4):1325-30

Kearns-Sayre Syndrome	Phenotype(s)	MGI:2177634 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Ckmm-cre mice.
	Reference(s)	Wang J, Wilhelmsson H, Graff C, Li H, Oldfors A, Rustin P, Bruning JC, Kahn CR, Clayton DA, Barsh GS, Thoren P, Larsson NG, Dilated cardiomyopathy and atrioventricular conduction blocks induced by heart-specific inactivation of mitochondrial DNA gene expression. Nat Genet. 1999 Jan;21(1):133-7

Validation Data

No data