

Stat3-Flox

Nomenclature	C57BL/6Smoc- <i>Stat3</i> ^{tm7(flox)Smoc}
Cat. NO.	NM-CKO-200050
Strain State	Repository Live

Gene Summary

Gene Symbol Stat3	Synonyms	Aprf; AW109958; 1110034C02Rik
	NCBI ID	20848
	MGI ID	103038
	Ensembl ID	ENSMUSG000000004040
	Human Ortholog	STAT3

Model Description

These mice carry loxP sites flanking exon 12-14 of Stat3 gene. When crossed with a Cre recombinase-expressing strain, this strain is useful in eliminating tissue-specific conditional expression of Stat3 gene. While Stat3-Flox(2)(Stock No. NM-CKO-200225) mice carrying the loxP sites flanking exon 18-20 of Stat3 gene.

Research Application: Cancer research

*Literature published using this strain should indicate: Stat3-Flox mice (Cat. NO. NM-CKO-200050) were purchased from Shanghai Model Organisms Center, Inc..

Disease Connection

Inflammatory Bowel Disease	Phenotype(s)	MGI:2683230 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Tek-cre mice.
	Reference(s)	Kano A, Wolfgang MJ, Gao Q, Jacoby J, Chai GX, Hansen W, Iwamoto Y, Pober JS, Flavell RA, Fu XY, Endothelial cells require STAT3 for protection against endotoxin-induced inflammation. J Exp Med. 2003 Nov 17;198(10):1517-25

inflammatory bowel disease	Phenotype(s)	MGI:3783296 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Tek-cre mice.
	Reference(s)	Welte T, Zhang SS, Wang T, Zhang Z, Hesslein DG, Yin Z, Kano A, Iwamoto Y, Li E, Craft JE, Bothwell AL, Fikrig E, Koni PA, Flavell RA, Fu XY, STAT3 deletion during hematopoiesis causes Crohn's disease-like pathogenesis and lethality: a critical role of STAT3 in innate immunity. Proc Natl Acad Sci U S A. 2003 Feb 18;100(4):1879-84
Peripartum Cardiomyopathy	Phenotype(s)	MGI:5906908 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Myh6-cre mice.
	Reference(s)	Hilfiker-Kleiner D, Kaminski K, Podewski E, Bonda T, Schaefer A, Sliwa K, Forster O, Quint A, Landmesser U, Doerries C, Luchtefeld M, Poli V, Schneider MD, Balligand JL, Desjardins F, Ansari A, Struman I, Nguyen NQ, Zschemisch NH, Klein G, Heusch G, Schulz R, Hilfiker A, Drexler H, A cathepsin D-cleaved 16 kDa form of prolactin mediates postpartum cardiomyopathy. Cell. 2007 Feb 9;128(3):589-600
Inflammatory Bowel Disease	Phenotype(s)	MGI:4429499 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Csf1r-icre mice.
	Reference(s)	Deng L, Zhou JF, Sellers RS, Li JF, Nguyen AV, Wang Y, Orlofsky A, Liu Q, Hume DA, Pollard JW, Augenlicht L, Lin EY, A novel mouse model of inflammatory bowel disease links mammalian target of rapamycin-dependent hyperproliferation of colonic epithelium to inflammation-associated tumorigenesis. Am J Pathol. 2010 Feb;176(2):952-67

Validation Data

No data