

Nf2-Flox

Nomenclature	C57BL/6Smoc- <i>Nf2</i> ^{tm1(flox)Smoc}
Cat. NO.	NM-CKO-200017
Strain State	Sperm cryopreservation

Gene Summary

Gene Symbol Nf2	Synonyms	merlin
	NCBI ID	18016
	MGI ID	97307
	Ensembl ID	ENSMUSG000000009073
	Human Ortholog	NF2

Model Description

These mice carry loxP sites flanking exon 2 of Nf2 gene. When crossed with a Cre recombinase-expressing strain, this strain is useful in eliminating tissue-specific conditional expression of Nf2 gene.

Research Application: Cancer research

*Literature published using this strain should indicate: Nf2-Flox mice (Cat. NO. NM-CKO-200017) were purchased from Shanghai Model Organisms Center, Inc..

Disease Connection

Renal Cell Carcinoma	Phenotype(s)	MGI:3850478 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Vil1-cre mice.
	Reference(s)	Morris ZS, McClatchey AI, Aberrant epithelial morphology and persistent epidermal growth factor receptor signaling in a mouse model of renal carcinoma. Proc Natl Acad Sci U S A. 2009 Jun 16;106(24):9767-72

Neurofibromatosis	Phenotype(s)	MGI:5619302 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Postn-cre mice.
	Reference(s)	Gehlhausen JR, Park SJ, Hickox AE, Shew M, Staser K, Rhodes SD, Menon K, Lajiness JD, Mwanthi M, Yang X, Yuan J, Territo P, Hutchins G, Nalepa G, Yang FC, Conway SJ, Heinz MG, Stemmer-Rachamimov A, Yates CW, Wade Clapp D, A murine model of neurofibromatosis type 2 that accurately phenocopies human schwannoma formation. Hum Mol Genet. 2015 Jan 1;24(1):1-8
Otitis Media	Phenotype(s)	MGI:3850388 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Mpz-cre mice.
	Reference(s)	Giovannini M, Robanus-Maandag E, van der Valk M, Niwa-Kawakita M, Abramowski V, Goutebroze L, Woodruff JM, Berns A, Thomas G, Conditional biallelic Nf2 mutation in the mouse promotes manifestations of human neurofibromatosis type 2. Genes Dev. 2000 Jul 1;14(13):1617-30
Thyroid Gland Cancer	Phenotype(s)	MGI:5784770 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Hras-Flox(NM-CKO-2117376) and TPO-cre mice.
	Reference(s)	Garcia-Rendueles ME, Ricarte-Filho JC, Untch BR, Landa I, Knauf JA, Voza F, Smith VE, Ganly I, Taylor BS, Persaud Y, Oler G, Fang Y, Jhanwar SC, Viale A, Heguy A, Huberman KH, Giancotti F, Ghossein R, Fagin JA, NF2 Loss Promotes Oncogenic RAS-Induced Thyroid Cancers via YAP-Dependent Transactivation of RAS Proteins and Sensitizes Them to MEK Inhibition. Cancer Discov. 2015 Nov;5(11):1178-93

Validation Data

No data