

Nf1-Flox

品系全名	C57BL/6Smoc- <i>Nf1</i> ^{tm1(flox)Smoc}
目录号	NM-CKO-200018
品系状态	活体

基因信息

基因名 Nf1	基因曾用名	Dsk9; Nf-1; AW494271; Mhdadsk9; E030030H24Rik
	NCBI ID	18015
	MGI ID	97306
	Ensembl ID	ENSMUSG00000020716
	人类同源基因	NF1

品系描述

在Nf1基因exon 31-32两侧分别插入loxP位点。该flox小鼠可与组织特异性Cre工具鼠交配，获得在特定细胞类型或组织中敲除Nf1基因的小鼠模型。

应用领域：肿瘤相关研究

*使用本品系发表的文献需注明: Nf1-Flox mice (Cat. NO. NM-CKO-200018) were purchased from Shanghai Model Organisms Center, Inc..

疾病预测

恶性星形细胞瘤 Malignant Astrocytoma	近似模型的表型	MGI:4840090 注：该品系与P53-Flox(2)(NM-CKO-190067)和GFAP-cre工具鼠交配才可能获得预期表型
	参考文献	Kwon CH, Zhao D, Chen J, Alcantara S, Li Y, Burns DK, Mason RP, Lee EY, Wu H, Parada LF, Pten haploinsufficiency accelerates formation of high-grade astrocytomas. Cancer Res. 2008 May 1;68(9):3286-94

恶性星形细胞瘤 Malignant Astrocytoma	近似模型的表型	MGI:4840094 注：该品系与Pten-Flox(NM-CKO-18004), P53-Flox(2)(NM-CKO-190067)和GFAP-cre工具鼠交配才可能获得预期表型
	参考文献	Kwon CH, Zhao D, Chen J, Alcantara S, Li Y, Burns DK, Mason RP, Lee EY, Wu H, Parada LF, Pten haploinsufficiency accelerates formation of high-grade astrocytomas. Cancer Res. 2008 May 1;68(9):3286-94
恶性星形细胞瘤 Malignant Astrocytoma	近似模型的表型	MGI:4840095 注：该品系与P53-Flox(2)(NM-CKO-190067)和GFAP-cre工具鼠交配才可能获得预期表型
	参考文献	Kwon CH, Zhao D, Chen J, Alcantara S, Li Y, Burns DK, Mason RP, Lee EY, Wu H, Parada LF, Pten haploinsufficiency accelerates formation of high-grade astrocytomas. Cancer Res. 2008 May 1;68(9):3286-94
胶质母细胞瘤 Glioblastoma	近似模型的表型	MGI:3849179 注：该品系与P53-Flox(2)(NM-CKO-190067)和GFAP-cre工具鼠交配才可能获得预期表型
	参考文献	Wang Y, Yang J, Zheng H, Tomasek GJ, Zhang P, McKeever PE, Lee EY, Zhu Y, Expression of mutant p53 proteins implicates a lineage relationship between neural stem cells and malignant astrocytic glioma in a murine model. Cancer Cell. 2009 Jun 2;15(6):514-26
肉瘤 Sarcoma	近似模型的表型	MGI:5792147 注：该品系与Cdkn2a-Flox(2)(NM-CKO-200151)和Ad-Cre工具鼠交配才可能获得预期表型
	参考文献	Dodd RD, Mito JK, Eward WC, Chitalia R, Sachdeva M, Ma Y, Barretina J, Dodd L, Kirsch DG, NF1 deletion generates multiple subtypes of soft-tissue sarcoma that respond to MEK inhibition. Mol Cancer Ther. 2013 Sep;12(9):1906-17
神经纤维瘤病 Neurofibromatosis	近似模型的表型	MGI:2176767 注：该品系与Syn1-cre工具鼠交配才可能获得预期表型
	参考文献	Zhu Y, Romero MI, Ghosh P, Ye Z, Charnay P, Rushing EJ, Marth JD, Parada LF, Ablation of NF1 function in neurons induces abnormal development of cerebral cortex and reactive gliosis in the brain. Genes Dev. 2001 Apr 1;15(7):859-76

神经纤维瘤病 Neurofibromatosis	近似模型的表型	MGI:3710235 注：该品系与Nf1-Flox(NM-CKO-200018)工具鼠交配才可能获得预期表型
	参考文献	Gitler AD, Zhu Y, Ismat FA, Lu MM, Yamauchi Y, Parada LF, Epstein JA, Nf1 has an essential role in endothelial cells. Nat Genet. 2003 Jan;33(1):75-9
神经纤维瘤病 Neurofibromatosis	近似模型的表型	MGI:3710236 注：该品系与Pax3-cre工具鼠交配才可能获得预期表型
	参考文献	Gitler AD, Zhu Y, Ismat FA, Lu MM, Yamauchi Y, Parada LF, Epstein JA, Nf1 has an essential role in endothelial cells. Nat Genet. 2003 Jan;33(1):75-9
神经纤维瘤病 Neurofibromatosis	近似模型的表型	MGI:3810648 注：该品系与Fabp7-cre工具鼠交配才可能获得预期表型
	参考文献	Hegedus B, Yeh TH, Lee da Y, Emmett RJ, Li J, Gutmann DH, Neurofibromin regulates somatic growth through the hypothalamic-pituitary axis. Hum Mol Genet. 2008 Oct 1;17(19):2956-66
神经纤维瘤病 Neurofibromatosis	近似模型的表型	MGI:4838320 注：该品系与GFAP-cre工具鼠交配才可能获得预期表型
	参考文献	Kim KY, Ju WK, Hegedus B, Gutmann DH, Ellisman MH, Ultrastructural characterization of the optic pathway in a mouse model of neurofibromatosis-1 optic glioma. Neuroscience. 2010 Sep 29;170(1):178-88
神经纤维瘤病 Neurofibromatosis	近似模型的表型	MGI:5492109 注：该品系与Prrx1-cre工具鼠交配才可能获得预期表型
	参考文献	Kossler N, Stricker S, Rodelsperger C, Robinson PN, Kim J, Dietrich C, Osswald M, Kuhnisch J, Stevenson DA, Braun T, Mundlos S, Kolanczyk M, Neurofibromin (Nf1) is required for skeletal muscle development. Hum Mol Genet. 2011 Jul 15;20(14):2697-709

神经纤维瘤病 Neurofibromatosis	近似模型的表型 MGI:6275138 注：该品系与Dhh-cre工具鼠交配才可能获得预期表型
	参考文献 Li K, Turner AN, Chen M, Brosius SN, Schoeb TR, Messiaen LM, Bedwell DM, Zinn KR, Anastasaki C, Gutmann DH, Korf BR, Kesterson RA, Mice with missense and nonsense NF1 mutations display divergent phenotypes compared with human neurofibromatosis type I. Dis Model Mech. 2016 Jul 1;9(7):759-67
幼年型粒单核细胞白血病 Juvenile Myelomonocytic Leukemia	近似模型的表型 MGI:5544056 注：该品系与Mx1-cre工具鼠交配才可能获得预期表型
	参考文献 Le DT, Kong N, Zhu Y, Lauchle JO, Aiyigari A, Braun BS, Wang E, Kogan SC, Le Beau MM, Parada L, Shannon KM, Somatic inactivation of Nf1 in hematopoietic cells results in a progressive myeloproliferative disorder. Blood. 2004 Jun 1;103(11):4243-50
幼年型粒单核细胞白血病 Juvenile Myelomonocytic Leukemia	近似模型的表型 MGI:5787929 注：该品系与Pten-Flox(NM-CKO-18004)和Mx1-cre工具鼠交配才可能获得预期表型
	参考文献 Liu YL, Yan Y, Webster C, Shao L, Lensing SY, Ni H, Feng W, Colorado N, Pathak R, Xiang Z, Hauer-Jensen M, Li S, Zhou D, Emanuel PD, Timing of the loss of Pten protein determines disease severity in a mouse model of myeloid malignancy. Blood. 2016 Apr 14;127(15):1912-22

验证数据

暂无数据