

Smad4-Flox

Nomenclature	C57BL/6Smoc- <i>Smad4</i> ^{tm1(flox)Smoc}
Cat. NO.	NM-CKO-18011
Strain State	Embryo cryopreservation

Gene Summary

Gene Symbol Smad4	Synonyms	DPC4; Madh4; AW743858; D18Wsu70e
	NCBI ID	17128
	MGI ID	894293
	Ensembl ID	ENSMUSG00000024515
	Human Ortholog	SMAD4

Model Description

These mice carry loxP sites flanking exon3-4 of Smad4 gene. When crossed with a Cre recombinase-expressing strain, this strain is useful in eliminating tissue-specific conditional expression of Smad4 gene.

*Literature published using this strain should indicate: Smad4-Flox mice (Cat. NO. NM-CKO-18011) were purchased from Shanghai Model Organisms Center, Inc..

Disease Connection

Osteogenesis Imperfecta	Phenotype(s)	MGI:5604139 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Sp7-tTA,tetO-EGFP/cre mice.
	Reference(s)	Salazar VS, Zarkadis N, Huang L, Norris J, Grimston SK, Mbalaviele G, Civitelli R, Embryonic ablation of osteoblast Smad4 interrupts matrix synthesis in response to canonical Wnt signaling and causes an osteogenesis-imperfecta-like phenotype. J Cell Sci. 2013 Nov 1;126(Pt 21):4974-84

Squamous Cell Carcinoma	Phenotype(s)	MGI:5556259 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Kras-LSL-G12D(NM-KI-190003) and Krt1-15-cre mice.
	Reference(s)	White RA, Neiman JM, Reddi A, Han G, Birlea S, Mitra D, Dionne L, Fernandez P, Murao K, Bian L, Keysar SB, Goldstein NB, Song N, Bornstein S, Han Z, Lu X, Wisell J, Li F, Song J, Lu SL, Jimeno A, Roop DR, Wang XJ, Epithelial stem cell mutations that promote squamous cell carcinoma metastasis. J Clin Invest. 2013 Oct 1;123(10):4390-404
Stomach Cancer	Phenotype(s)	MGI:5634400 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Cdh1-Flox(NM-CKO-18016), P53-Flox(2)(NM-CKO-190067) and Pdx1-cre mice.
	Reference(s)	Park JW, Jang SH, Park DM, Lim NJ, Deng C, Kim DY, Green JE, Kim HK, Cooperativity of E-cadherin and Smad4 Loss to Promote Diffuse-Type Gastric Adenocarcinoma and Metastasis. Mol Cancer Res. 2014 Aug;12(8):1088-99

Validation Data

No data