

Nos1-KO

Nomenclature	C57BL/6Smoc- <i>Nos1</i> ^{em1Smoc}
Cat. NO.	NM-KO-240406
Strain State	Developing

Gene Summary

Gene Symbol Nos1	Synonyms	NO; NOS; bNOS; nNOS; N-NOS; NOS-I; Nos-1; NC-NOS; 2310005C01Rik
	NCBI ID	18125
	MGI ID	97360
	Ensembl ID	ENSMUSG00000029361
	Human Ortholog	NOS1

Model Description

The exon 1 of Nos1 gene was deleted to generate Nos1 knockout mouse.

*Literature published using this strain should indicate: Nos1-KO mice (Cat. NO. NM-KO-240406) were purchased from Shanghai Model Organisms Center, Inc..

Disease Connection

Hypertrophic Cardiomyopathy	Phenotype(s)	MGI:4367213 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Nos3-KO(NM-KO-18022) mice.
	Reference(s)	Barouch LA, Cappola TP, Harrison RW, Crone JK, Rodriguez ER, Burnett AL, Hare JM, Combined loss of neuronal and endothelial nitric oxide synthase causes premature mortality and age-related hypertrophic cardiac remodeling in mice. J Mol Cell Cardiol. 2003 Jun;35(6):637-44

Nephrogenic Diabetes Insipidus	Phenotype(s)	MGI:3789190 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Nos2-KO(NM-KO-18027) and Nos3-KO(NM-KO-18022) mice.
	Reference(s)	Morishita T, Tsutsui M, Shimokawa H, Sabanai K, Tasaki H, Suda O, Nakata S, Tanimoto A, Wang KY, Ueta Y, Sasaguri Y, Nakashima Y, Yanagihara N, Nephrogenic diabetes insipidus in mice lacking all nitric oxide synthase isoforms. Proc Natl Acad Sci U S A. 2005 Jul 26;102(30):10616-21
Achalasia	Phenotype(s)	MGI:3618910
	Reference(s)	Sivarao DV, Mashimo HL, Thatte HS, Goyal RK, Lower esophageal sphincter is achalasic in nNOS(-/-) and hypotensive in W/W(v) mutant mice. Gastroenterology. 2001 Jul;121(1):34-42
Hypertrophic Pyloric Stenosis	Phenotype(s)	MGI:2174975
	Reference(s)	Huang PL, Dawson TM, Bredt DS, Snyder SH, Fishman MC, Targeted disruption of the neuronal nitric oxide synthase gene. Cell. 1993 Dec 31;75(7):1273-86

Validation Data

No data