App-KO

Nomenclature	C57BL/6Smoc-*App*^{em1Smoc}
Cat. NO.	NM-KO-190444
Strain State	Sperm cryopreservation

Gene Summary

Gene Symbol App	**Synonyms**	Ag, Abpp, Adap, Cvap, Abeta, betaApp, E030013M08Rik
	NCBI ID	11820
	MGI ID	88059
	Ensembl ID	ENSMUSG00000022892
	Human Ortholog	APP

Model Description

exon 3 of App gene was deleted to generate App knockout mice.
Research Application: neuronal differentiation/migration, synaptic regulation and Alzheimer's disease related
*Literature published using this strain should indicate: App-KO mice (Cat. NO. NM-KO-190444) were purchased from Shanghai Model Organisms Center, Inc..

Disease Connection

Alzheimer's Disease	**Phenotype(s)**	MGI:4847595 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Psen1-KO(NM-KO-202110) mice.
	Reference(s)	Guo Q, Zheng H, Justice NJ, Central CRF system perturbation in an Alzheimer's disease knockin mouse model. Neurobiol Aging. 2012 Nov;33(11):2678-91

Niemann-Pick Disease	**Phenotype(s)**	MGI:5305067 Note：The expected phenotype(s) may be observed in the above-mentioned mice that bred with Npc1-KO(NM-KO-205053) mice.
	Reference(s)	Nunes A, Pressey SN, Cooper JD, Soriano S, Loss of amyloid precursor protein in a mouse model of Niemann-Pick type C disease exacerbates its phenotype and disrupts tau homeostasis. Neurobiol Dis. 2011 Jun;42(3):349-59
Alzheimer's Disease	**Phenotype(s)**	MGI:2174917
	Reference(s)	Dawson GR, Seabrook GR, Zheng H, Smith DW, Graham S, O'Dowd G, Bowery BJ, Boyce S, Trumbauer ME, Chen HY, Van der Ploeg LH, Sirinathsinghji DJ, Age-related cognitive deficits, impaired long-term potentiation and reduction in synaptic marker density in mice lacking the beta-amyloid precursor protein. Neuroscience. 1999 Apr;90(1):1-13

Validation Data

No data