Zmpste24-KO

Nomenclature	C57BL/6Smoc-*Zmpste24*^{em1Smoc}
Cat. NO.	NM-KO-18011
Strain State	Repository Live

Gene Summary

Gene Symbol Zmpste24	**Synonyms**	MADB; FACE1; STE24; Face-1; Ste24p; D030046F19; A530043O15Rik
	NCBI ID	230709
	MGI ID	1890508
	Ensembl ID	ENSMUSG00000043207
	Human Ortholog	ZMPSTE24

Model Description

Exon4-6 of Zmpste24 gene were deleted to generate Zmpste24 knockout mice.
Research Application: premature aging disease Hutchinson-Gilford progeria syndrome (HGPS)
*Literature published using this strain should indicate: Zmpste24-KO mice (Cat. NO. NM-KO-18011) were purchased from Shanghai Model Organisms Center, Inc..

Disease Connection

Achalasia	**Phenotype(s)**	MGI:5754490 Note: The expected phenotype(s) may be observed in the above-mentioned mice that bred with Lmna-KO(NM-K0-210380) mice.
	Reference(s)	Yang SH, Procaccia S, Jung HJ, Nobumori C, Tatar A, Tu Y, Bayguinov YR, Hwang SJ, Tran D, Ward SM, Fong LG, Young SG, Mice that express farnesylated versions of prelamin A in neurons develop achalasia. Hum Mol Genet. 2015 May 15;24(10):2826-40

Familial Partial Lipodystrophy	**Phenotype(s)**	MGI:3621007
	Reference(s)	Pendas AM, Zhou Z, Cadinanos J, Freije JM, Wang J, Hultenby K, Astudillo A, Wernerson A, Rodriguez F, Tryggvason K, Lopez-Otin C, Defective prelamin A processing and muscular and adipocyte alterations in Zmpste24 metalloproteinase-deficient mice. Nat Genet. 2002 May;31(1):94-9
Progeria	**Phenotype(s)**	MGI:3620907
	Reference(s)	Fong LG, Ng JK, Meta M, Cote N, Yang SH, Stewart CL, Sullivan T, Burghardt A, Majumdar S, Reue K, Bergo MO, Young SG, Heterozygosity for Lmna deficiency eliminates the progeria-like phenotypes in Zmpste24-deficient mice. Proc Natl Acad Sci U S A. 2004 Dec 28;101(52):18111-6

Validation Data

No data