

# Cav1-KO

|                     |                                             |
|---------------------|---------------------------------------------|
| <b>Nomenclature</b> | C57BL/6Smoc- <i>Cav1</i> <sup>em1Smoc</sup> |
| <b>Cat. NO.</b>     | NM-KO-190930                                |
| <b>Strain State</b> | Sperm cryopreservation                      |

## Gene Summary

|                            |                       |                                     |
|----------------------------|-----------------------|-------------------------------------|
| <b>Gene Symbol</b><br>Cav1 | <b>Synonyms</b>       | Cav; Cav-1                          |
|                            | <b>NCBI ID</b>        | <a href="#">12389</a>               |
|                            | <b>MGI ID</b>         | <a href="#">102709</a>              |
|                            | <b>Ensembl ID</b>     | <a href="#">ENSMUSG000000007655</a> |
|                            | <b>Human Ortholog</b> | CAV1                                |

## Model Description

Exon 3 of Cav1 gene was deleted to generate Cav1 knockout mice.

**Research Application:** Tumor suppression,vascular system,fibrosis,Berardinelli-Seip congenital lipodystrophy

\*Literature published using this strain should indicate: Cav1-KO mice (Cat. NO. NM-KO-190930) were purchased from Shanghai Model Organisms Center, Inc..

## Disease Connection

|                            |                     |                                                                                                                                                                                                                                                      |
|----------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Alzheimer's Disease</b> | <b>Phenotype(s)</b> | <a href="#">MGI:5014041</a>                                                                                                                                                                                                                          |
|                            | <b>Reference(s)</b> | Head BP, Peart JN, Panneerselvam M, Yokoyama T, Pearn ML, Niesman IR, Bonds JA, Schilling JM, Miyanohara A, Headrick J, Ali SS, Roth DM, Patel PM, Patel HH, Loss of caveolin-1 accelerates neurodegeneration and aging. PLoS One. 2010;5(12):e15697 |

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|------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Breast Cancer</b>               | <b>Phenotype(s)</b> | <a href="#">MGI:3843497</a>                                                                                                                                                                                                                                                                                                                            |
|                                    | <b>Reference(s)</b> | Mercier I, Casimiro MC, Zhou J, Wang C, Plymire C, Bryant KG, Daumer KM, Sotgia F, Bonuccelli G, Witkiewicz AK, Lin J, Tran TH, Milliman J, Frank PG, Jasmin JF, Rui H, Pestell RG, Lisanti MP, Genetic ablation of caveolin-1 drives estrogen-hypersensitivity and the development of DCIS-like mammary lesions. Am J Pathol. 2009 Apr;174(4):1172-90 |
| <b>Hypertrophic Cardiomyopathy</b> | <b>Phenotype(s)</b> | <a href="#">MGI:2669401</a>                                                                                                                                                                                                                                                                                                                            |
|                                    | <b>Reference(s)</b> | Park DS, Cohen AW, Frank PG, Razani B, Lee H, Williams TM, Chandra M, Shirani J, De Souza AP, Tang B, Jelicks LA, Factor SM, Weiss LM, Tanowitz HB, Lisanti MP, Caveolin-1 Null (-/-) Mice Show Dramatic Reductions in Life Span. Biochemistry. 2003 Dec 30;42(51):15124-15131                                                                         |

## Validation Data

No data