

adseverin (C-2): sc-376136

BACKGROUND

Adseverin (ADSV), also known as scinderin (SCIN), is a 715 amino acid protein belonging to the Villin/Gelsolin family. Adseverin is a Ca^{2+} -dependent Actin filament-severing protein localized to the cytoskeleton. Adseverin is believed to have a regulatory role in exocytosis by altering the organization of the microfilament network underneath the plasma membrane. *In vitro*, adseverin has barbed end capping and nucleating activities in the presence of Ca^{2+} . Adseverin contains six Gelsolin-like repeats and is expressed as two isoforms produced by alternative splicing.

REFERENCES

- Rodríguez Del Castillo, A., et al. 1992. Ca^{2+} and pH determine the interaction of chromaffin cell scinderin with phosphatidylserine and phosphatidylinositol 4,5-bisphosphate and its cellular distribution during nicotinic-receptor stimulation and protein kinase C activation. *J. Cell Biol.* 119: 797-810.
- Rodríguez Del Castillo, A., et al. 1992. Human platelets contain scinderin, a Ca^{2+} -dependent Actin filament-severing protein. *Thromb. Haemost.* 67: 248-251.
- Lueck, A., et al. 1998. The Actin-binding proteins adseverin and gelsolin are both highly expressed but differentially localized in kidney and intestine. *J. Cell Sci.* 111: 3633-3643.

CHROMOSOMAL LOCATION

Genetic locus: SCIN (human) mapping to 7p21.3; Scin (mouse) mapping to 12 B1.

SOURCE

adseverin (C-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 7-33 at the N-terminus of adseverin of human origin.

PRODUCT

Each vial contains 200 μg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

adseverin (C-2) is available conjugated to agarose (sc-376136 AC), 500 μg /0.25 ml agarose in 1 ml, for IP; to HRP (sc-376136 HRP), 200 μg /ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376136 PE), fluorescein (sc-376136 FITC), Alexa Fluor® 488 (sc-376136 AF488), Alexa Fluor® 546 (sc-376136 AF546), Alexa Fluor® 594 (sc-376136 AF594) or Alexa Fluor® 647 (sc-376136 AF647), 200 μg /ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376136 AF680) or Alexa Fluor® 790 (sc-376136 AF790), 200 μg /ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376136 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

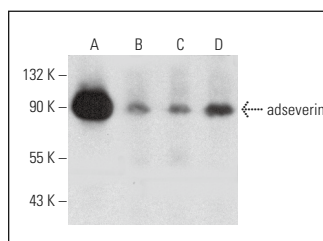
adseverin (C-2) is recommended for detection of adseverin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). adseverin (C-2) is also recommended for detection of adseverin in additional species, including equine and porcine.

Suitable for use as control antibody for adseverin siRNA (h): sc-72455, adseverin siRNA (m): sc-72456, adseverin shRNA Plasmid (h): sc-72455-SH, adseverin shRNA Plasmid (m): sc-72456-SH, adseverin shRNA (h) Lentiviral Particles: sc-72455-V and adseverin shRNA (m) Lentiviral Particles: sc-72456-V.

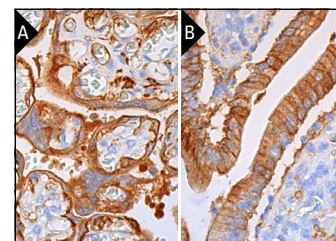
Molecular Weight of adseverin: 79 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243, L8 cell lysate: sc-3807 or Sol8 cell lysate: sc-2249.

DATA



adseverin (C-2): sc-376136. Western blot analysis of adseverin expression in Caki-1 (A), 3T3-L1 (B), Sol8 (C) and L8 (D) whole cell lysates.



adseverin (C-2): sc-376136. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic and membrane staining of trophoblastic cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human small intestine tissue showing cytoplasmic and membrane staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Chen, L., et al. 2017. Transcriptomes of major renal collecting duct cell types in mouse identified by single-cell RNA-seq. *Proc. Natl. Acad. Sci. USA* 114: E9989-E9998.
- Tanic, J., et al. 2019. Adseverin modulates morphology and invasive function of MCF7 cells. *Biochim. Biophys. Acta Mol. Basis Dis.* 1865: 2716-2725.
- Wang, X., et al. 2022. Scinderin promotes fusion of electron transport chain dysfunctional muscle stem cells with myofibers. *Nat. Aging* 2: 155-169.
- Perez-Castro, L., et al. 2022. The AHR target gene scinderin activates the WNT pathway by facilitating the nuclear translocation of β -catenin. *J. Cell Sci.* 135: jcs260028.

RESEARCH USE

For research use only, not for use in diagnostic procedures.