

Mena (21): sc-135988

BACKGROUND

The Wiskott-Aldrich syndrome (WAS) is characterized by thrombocytopenia, eczema, defects in cell-mediated and humoral immunity and a propensity for lymphoproliferative diseases. The syndrome is the result of a mutation in the gene encoding a proline-rich protein termed WASP. WASP is a downstream effector of Cdc42 and has been implicated in Actin polymerization and cyto-skeletal organization. Distantly related proteins, VASP (vasodilator-stimulated phosphoprotein) and Mena (for mammalian enabled protein), are involved in the regulation of cytoskeletal dynamics. Both Mena and VASP accumulate at focal adhesions. Mena is highly expressed in the developing nervous system and may be involved in growth cone motility and axon guidance.

REFERENCES

1. Reinhard, M., et al. 1992. The 46/50 kDa phosphoprotein VASP purified from human platelets is a novel protein associated with Actin filaments and focal contacts. *EMBO J.* 11: 2063-2070.
2. Remold-O'Donnell, E., et al. 1996. Defects in Wiskott-Aldrich syndrome blood cells. *Blood* 87: 2621-2631.
3. Symons, M., et al. 1996. Wiskott-Aldrich syndrome protein, a novel effector for the GTPase CDC42Hs, is implicated in Actin polymerization. *Cell* 84: 723-734.

CHROMOSOMAL LOCATION

Genetic locus: ENAH (human) mapping to 1q42.12; Enah (mouse) mapping to 1 H5.

SOURCE

Mena (21) is a mouse monoclonal antibody raised against amino acids 415-541 of Mena of mouse origin.

PRODUCT

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

APPLICATIONS

Mena (21) is recommended for detection of Mena of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500); not recommended for immunoprecipitation.

Suitable for use as control antibody for Mena siRNA (h): sc-43496, Mena siRNA (m): sc-43497, Mena shRNA Plasmid (h): sc-43496-SH, Mena shRNA Plasmid (m): sc-43497-SH, Mena shRNA (h) Lentiviral Particles: sc-43496-V and Mena shRNA (m) Lentiviral Particles: sc-43497-V.

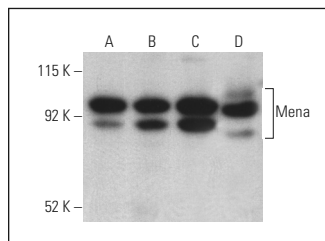
Molecular Weight of Mena tissue specific isoforms: 80/88/140 kDa.

Positive Controls: NCI-H460 whole cell lysate: sc-364235.

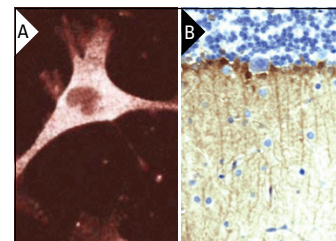
STORAGE

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

DATA



Mena (21): sc-135988. Western blot analysis of Mena expression in NCI-H460 (A), U-251-MG (B), T98G (C) and NIH/3T3 (D) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



Mena (21): sc-135988. Immunofluorescence staining of A-431 cells showing cell junction and cytoplasmic localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded rat cerebellum tissue showing cytoplasmic localization (B).

SELECT PRODUCT CITATIONS

1. Romero, A.M., et al. 2010. Chronic ethanol exposure alters the levels, assembly, and cellular organization of the Actin cytoskeleton and microtubules in hippocampal neurons in primary culture. *Toxicol. Sci.* 18: 602-612.
2. Romero, A.M., et al. 2013. Chronic alcohol alters dendritic spine development in neurons in primary culture. *Neurotox. Res.* 24: 532-548.
3. Cardinali, G., et al. 2013. hMena: altered expression in psoriatic skin. *Arch. Dermatol. Res.* 305: 933-938.
4. Estin, M.L., et al. 2017. Ena/VASP proteins regulate activated T-cell trafficking by promoting diapedesis during transendothelial migration. *Proc. Natl. Acad. Sci. USA* 114: E2901-E2910.
5. Young, L.E., et al. 2018. Roles for Ena/VASP proteins in FMNL3-mediated filopodial assembly. *J. Cell Sci.* 131: jcs220814.
6. Beaudreuil, S., et al. 2019. Circulating CASK is associated with recurrent focal segmental glomerulosclerosis after transplantation. *PLoS ONE* 14: e0219353.
7. Serres, M.P., et al. 2020. F-Actin interactome reveals vimentin as a key regulator of Actin organization and cell mechanics in mitosis. *Dev. Cell* 52: 210-222.e7.
8. Shi, K., et al. 2021. Yeast two-hybrid screen identifies PKA-Riα interacting proteins during mouse spermiogenesis. *Genes* 12: 1941.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.