Mena Antibody

#2075

Store at -20°C

☑ 100 µl
(10 western blots)

Cell Signaling TECHNOLOGY®

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Entrez-Gene ID #55740
Swiss-Prot Acc. #Q8N8S7

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, R, M	80, 88, 140 kDa	Rabbit**

Background: Mena (mammalian enabled), EVL, and VASP are members of the Ena/VASP family, which is involved in controlling cell shape and cell movement by shielding actin filaments from capping proteins (1). Ena/VASP proteins have three specific domains: an amino-terminal EVH1 domain controlling protein localization; a central proline-rich domain mediating interactions with both SH3 and WW domain containing proteins, including profilin; and a carboxy-terminal domain causing tetramerization and binding to actin (2). Mena interacts with actin filaments at the growing ends localizing to lamellipodia and to tips of growth cone filopodia in neurons. Axons projecting from interhemispheric cortico-cortical neurons are misrouted in newborn, homozygous Mena knock-out mice (3). Mena is phosphorylated at Ser236 by PKA, thereby promoting filopodial formation and elongation in the growth cone (4).

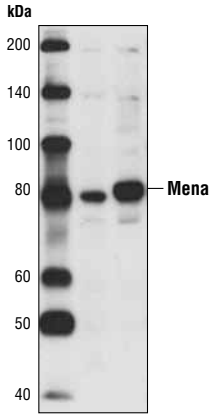
Three forms of Mena corresponding to 80, 88 and 140 kD are known. The 80 kD protein is broadly expressed in contrast to the 140 kD protein which is enriched in neural cell types. Alternative splicing produces these forms. The 88 kD protein is mainly found in embryonic cell types and is likely the result of post-translational modification. Expression of all three forms is completely eliminated in Mena homozygous mutant animals (1, 3).

Specificity/Sensitivity: Mena Antibody detects endogenous levels of total Mena protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide of human Mena. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

(1) Gertler, F.B. et al. (1996) *Cell* 87, 227–39.
(2) Small, J.V. (2008) *Nat Cell Biol* 10, 118–20.
(3) Lanier, L.M. et al. (1999) *Neuron* 22, 313–25.
(4) Lebrand, C. et al. (2004) *Neuron* 42, 37–49.



Western blot analysis of extracts from C6 and A431 cells using Mena Antibody.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:
Western Blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—Horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.