

ENAH Rabbit pAb

Catalog # AP99721

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	Q8N8S7
Other Accession	Q8N8S7
Predicted	Rat, Pig, Human, Mouse, Rabbit, Chicken, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	66510
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ENAH/MENA
Epitope Specificity	501-591/591
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the Ena/VASP family. Contains 1 WH1 domain.
SUBUNIT	Homotetramer. Interacts with APBB1IP, APBB1, PFN1 and ROBO4. Isoforms, containing the polyproline-rich regions with PPLP motifs, bind the WW domain of APBB1IP. Isoforms, containing the PPSY motif, bind, in vitro, to the WW2 and WW3 domains of NEDD4 and to the WW1 domain of YAP1. Binds the SH3 domain of BAIAP2-alpha but only after the autoinhibitory region of BAIAP2-alpha has been blocked by interaction with CDC42. Interacts, via the EVH1/WH1 domain, with the Pro-rich domains from VCL, ZYX and Listeria monocytogenes actA and with TES (via LIM domains). The TES LIM domain and the Pro-rich domains from VCL or ZYX compete for the same binding site. Interaction with ZYX is important for targeting ENAH to focal adhesions and enhances production of actin-rich structures at the apical surface of cells. Interacts, through the Pro-rich region, with the C-terminal SH3 domain of DNMPB. Binds GPHN. Interacts with FAT1 (via EVH1 domains). Heterotrimer with TES and ACTL7A.
Post-translational modifications	NTN1-induced PKA phosphorylation on Ser-265 directly parallels the formation of filopodial protrusions. Phosphorylated upon DNA damage, probably by ATM or ATR.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	EVL is an Actin-binding protein that belongs to the Mena/VASP protein family. EVL is expressed in filopodial tips and localizes to the edge of the lamellipodia and focal adhesions. In epithelial cells, EVL localizes to the membrane of the lateral domain. EVL contains an N-terminal EVH1 domain, a proline-rich core and a C-terminal EVH2 domain. Via its proline-rich domain, EVL interacts with the SH3 domain of spectrin a II and the LIM domain of TES. EVL is closely related to VASP (vasodilator-stimulated phosphoprotein) and Mena (for mammalian enabled protein). Mena is highly expressed in the developing nervous system and may be involved in growth cone motility and axon guidance; VASP is involved in the maintenance of cyto-architecture by interacting with Actin-like filaments. All three proteins, EVL, Mena and VASP, are involved in cell motility and the regulation of cytoskeletal organization

and dynamics.

Additional Information

Gene ID	55740
Other Names	ENA; MENA; NDPP1; NDPP-1; WBP8; ENAH_HUMAN; ENAH; ENAH_MOUSE; NPC-derived proline-rich protein 1 (NDPP-1); ENAH actin regulator; enabled homolog (Drosophila); mammalian enabled
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ENAH
Synonyms	MENA
Function	Ena/VASP proteins are actin-associated proteins involved in a range of processes dependent on cytoskeleton remodeling and cell polarity such as axon guidance and lamellipodial and filopodial dynamics in migrating cells. ENAH induces the formation of F-actin rich outgrowths in fibroblasts. Acts synergistically with BAIAP2-alpha and downstream of NTN1 to promote filipodia formation (By similarity).
Cellular Location	Cytoplasm. Cytoplasm, cytoskeleton. Cell projection, lamellipodium. Cell projection, filopodium. Synapse. Cell junction, focal adhesion. Note=Targeted to the leading edge of lamellipodia and filopodia by MRL family members. Colocalizes at filopodial tips with a number of other proteins including vinculin and zyxlin. Colocalizes with N-WASP at the leading edge. Colocalizes with GPHN and PFN at synapses (By similarity).
Tissue Location	Expressed in myoepithelia of parotid, breast, bronchial glands and sweat glands. Expressed in colon-rectum muscularis mucosae epithelium, pancreas acinar ductal epithelium, endometrium epithelium, prostate fibromuscular stroma and placenta vascular media Overexpressed in a majority of breast cancer cell lines and primary breast tumor lesions.

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