

Anti-HEF1 Picoband Antibody
Catalog # ABO11980**Specification**

Anti-HEF1 Picoband Antibody - Product Information

Application	WB
Primary Accession	O14511
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Enhancer of filamentation 1(NEDD9) detection. Tested with WB in Human.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-HEF1 Picoband Antibody - Additional Information

Gene ID 4739

Other Names

Enhancer of filamentation 1, hEF1, CRK-associated substrate-related protein, CAS-L, CasL, Cas scaffolding protein family member 2, Neural precursor cell expressed developmentally down-regulated protein 9, NEDD-9, Renal carcinoma antigen NY-REN-12, p105, Enhancer of filamentation 1 p55, NEDD9, CASL, CASS2

Calculated MW

92861 MW KDa

Application Details

Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

Cytoplasm, cell cortex. Nucleus. Golgi apparatus. Cell projection, lamellipodium. Cytoplasm. Cell junction, focal adhesion. Localizes to both the cell nucleus and the cell periphery and is differently localized in fibroblasts and epithelial cells. In fibroblasts is predominantly nuclear and in some cells is present in the Golgi apparatus. In epithelial cells localized predominantly in the cell periphery with particular concentration in lamellipodia but is also found in the nucleus. Isoforms p105 and p115 are predominantly cytoplasmic and associate with focal adhesions while p55 associates with mitotic spindle.

Tissue Specificity

Widely expressed. Higher levels detected in kidney, lung, and placenta. Also detected in T-cells, B-cells and diverse cell lines. The protein has been detected in lymphocytes, in diverse cell lines, and in lung tissues.

Protein Name

Enhancer of filamentation 1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

Immunogen

E.coli-derived human HEF1 recombinant protein (Position: K273-E421). Human HEF1 shares 83% amino acid (aa) sequence identity with mouse HEF1.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the CAS family.

Anti-HEF1 Picoband Antibody - Protein Information

Name NEDD9 ([HGNC:7733](#))

Function

Scaffolding protein which plays a central coordinating role for tyrosine-kinase-based signaling related to cell adhesion (PubMed:[24574519](http://www.uniprot.org/citations/24574519)). As a focal adhesion protein, plays a role in embryonic fibroblast migration (By similarity). May play an important role in integrin beta-1 or B cell antigen receptor (BCR) mediated signaling in B- and T-cells. Integrin beta-1 stimulation leads to recruitment of various proteins including CRKL and SHPTP2 to the tyrosine phosphorylated form (PubMed:[9020138](http://www.uniprot.org/citations/9020138)). Promotes adhesion and migration of lymphocytes; as a result required for the correct migration of lymphocytes to the spleen and other secondary lymphoid organs (PubMed:[17174122](http://www.uniprot.org/citations/17174122)). Plays a role in the organization of T-cell F- actin cortical cytoskeleton and the centralization of T-cell receptor microclusters at the immunological synapse (By similarity). Negatively regulates cilia outgrowth in polarized cysts (By similarity). Modulates cilia disassembly via activation of AURKA-mediated phosphorylation of HDAC6 and subsequent deacetylation of alpha-tubulin (PubMed:[17604723](http://www.uniprot.org/citations/17604723)). Positively regulates RANKL-induced osteoclastogenesis (By similarity). Required for the maintenance of hippocampal dendritic spines in the dentate gyrus and CA1 regions, thereby involved in spatial learning and memory (By similarity).

Cellular Location

Cytoplasm, cell cortex. Nucleus. Golgi apparatus. Cell projection, lamellipodium. Cytoplasm. Cell junction, focal adhesion. Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, spindle pole. Cell projection, cilium. Cytoplasm, cytoskeleton, cilium basal body Basolateral cell membrane {ECO:0000250|UniProtKB:A0A8I3PDQ1}

Tissue Location

Expressed in B-cells (at protein level) (PubMed:9020138). Expressed in the respiratory epithelium

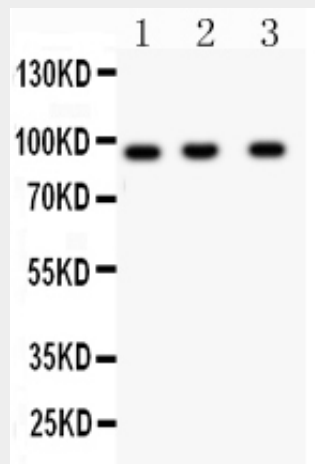
of the main bronchi to the bronchioles in the lungs (at protein level) (PubMed:9584194). High levels detected in kidney, lung, and placenta (PubMed:9584194). Expressed in lymphocytes (PubMed:9497377)

Anti-HEF1 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-HEF1 Picoband Antibody - Images



Anti- HEF1 Picoband antibody, ABO11980, Western blotting All lanes: Anti HEF1 (ABO11980) at 0.5ug/ml Lane 1: JURKAT Whole Cell Lysate at 40ug Lane 2: CEM Whole Cell Lysate at 40ug Lane 3: RAJI Whole Cell Lysate at 40ug Predicted bind size: 93KD Observed bind size: 93KD

Anti-HEF1 Picoband Antibody - Background

Enhancer of filamentation 1 (EF1), also known as NEDD-9, is a protein that in humans is encoded by the NEDD9 gene. The protein encoded by this gene is a member of the CRK-associated substrates family. Members of this family are adhesion docking molecules that mediate protein-protein interactions for signal transduction pathways. It is mapped to 6p24.2. This protein is a focal adhesion protein that acts as a scaffold to regulate signaling complexes important in cell attachment, migration and invasion as well as apoptosis and the cell cycle. This protein has also been reported to have a role in cancer metastasis. NEDD9 is also a highly relevant cancer gene that governs metastatic potential in human melanoma. What's more, it has been speculated that NEDD9 may be an important linking element between extracellular signaling and regulation of the cytoskeleton.