



## Rabbit Anti-HEF1 antibody

SL6265R

<b>Product Name:</b>	HEF1
<b>Chinese Name:</b>	蛋白激酶底物相关蛋白抗体
<b>Alias:</b>	CAS L; Cas like docking; Cas scaffolding protein family member 2; CAS-L; CAS2; CASL; CASL_HUMAN; CASS2; Crk associated substrate related protein; CRK-associated substrate-related protein; dJ49G10.2 (Enhancer of Filamentation 1 (HEF1)); Enhancer of filamentation 1; Enhancer of filamentation 1 p55; HEF 1; HEF1; NEDD 9; NEDD-9; NEDD9; NEDD9 protein; Neural cell expressed developmentally down regulated 9; Neural precursor cell expressed developmentally down regulated 9; Neural precursor cell expressed developmentally down-regulated protein 9; NY REN 12 antigen antibody p105; Protein NEDD9; Renal carcinoma antigen NY-REN-12.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Dog,Pig,Horse,Rabbit,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	92kDa
<b>Cellular localization:</b>	The nucleuscytoplasmicThe cell membrane
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human HEF1:501-600/834
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
<b>PubMed:</b>	<a href="#">PubMed</a>

Docking protein which plays a central coordinating role for tyrosine-kinase-based signaling related to cell adhesion. May function in transmitting growth control signals between focal adhesions at the cell periphery and the mitotic spindle in response to adhesion or growth factor signals initiating cell proliferation. 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 CRK, NCK and SHPTP2 to the tyrosine phosphorylated form.

**Function:**

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**Subunit:**

Interacts with BCAR3 and SH2D3C. Homodimer. Can heterodimerize with HLH proteins ID2, E12, E47 and also with p130cas. Forms complexes in vivo with related adhesion focal tyrosine kinase (RAFTK), adapter protein CRKL and LYN kinase. Interacts with MICAL and TXNL4/DIM1.

**Subcellular Location:**

Cytoplasm, cell cortex. Nucleus. Golgi apparatus. Cell projection, lamellipodium. Cytoplasm. Cell junction, focal adhesion. Note=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.

Enhancer of filamentation 1 p55: Cytoplasm, cytoskeleton, 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.

**Post-translational modifications:**

Cell cycle-regulated processing produces four isoforms: p115, p105, p65, and p55. Isoform p115 arises from p105 phosphorylation and appears later in the cell cycle. Isoform p55 arises from p105 as a result of cleavage at a caspase cleavage-related site and it appears specifically at mitosis. The p65 isoform is poorly detected. Focal adhesion kinase 1 phosphorylates the protein at the YDYVHL motif (conserved among all cas proteins). The SRC family kinases (FYN, SRC, LCK and CRK) are

**Product Detail:**

recruited to the phosphorylated sites and can phosphorylate other tyrosine residues. Ligation of either integrin beta-1 or B-cell antigen receptor on tonsillar B-cells and B-cell lines promotes tyrosine phosphorylation and both integrin and BCR-mediated tyrosine phosphorylation requires an intact actin network. In fibroblasts transformation with oncogene v-ABL results in an increase in tyrosine phosphorylation. Transiently phosphorylated following CD3 cross-linking and this phosphorylated form binds to CRK and C3G. A mutant lacking the SH3 domain is phosphorylated upon CD3 cross-linking but not upon integrin beta-1 cross-linking. Tyrosine phosphorylation occurs upon stimulation of the G-protein coupled C1a calcitonin receptor in rabbit. Calcitonin-stimulated tyrosine phosphorylation is mediated by calcium- and protein kinase C-dependent mechanisms and requires the integrity of the actin cytoskeleton.

**Similarity:**

Belongs to the CAS family.  
Contains 1 SH3 domain.

**SWISS:**

Q14511

**Gene ID:**

4739

**Database links:**

[Entrez Gene: 4739](#) Human

[Entrez Gene: 18003](#) Mouse

[Entrez Gene: 291044](#) Rat

[Omim: 602265](#) Human

[SwissProt: Q14511](#) Human

[SwissProt: O35177](#) Mouse

[Unigene: 37982](#) Human

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.