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EPS8 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP8148a

Specification

EPS8 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q12929

EPS8 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 2059

Other Names
Epidermal growth factor receptor kinase substrate 8, EPS8

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8148a was selected from the N-term region of human EPS8 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

EPS8 Antibody (N-term) Blocking Peptide - Protein Information

Name EPS8

Function
Signaling adapter that controls various cellular protrusions by regulating actin cytoskeleton dynamics and architecture. Depending on its association with other signal transducers, can regulate different processes. Together with SOS1 and ABI1, forms a trimeric complex that participates in transduction of signals from Ras to Rac by activating the Rac-specific guanine nucleotide exchange factor (GEF) activity. Acts as a direct regulator of actin dynamics by binding actin filaments and has both barbed-end actin filament capping and actin bundling activities depending on the context. Displays barbed-end actin capping activity when associated with ABI1, thereby regulating actin- based motility process: capping activity is auto-inhibited and inhibition is relieved upon ABI1 interaction. Also shows actin bundling activity when associated with BAIAP2, enhancing BAIAP2-dependent membrane extensions and promoting filopodial protrusions. Involved in the regulation of processes such as axonal filopodia growth, stereocilia length, dendritic cell migration and cancer cell migration and invasion. Acts as a regulator of axonal filopodia formation

in neurons: in the absence of neurotrophic factors, negatively regulates axonal filopodia formation via actin-capping activity. In contrast, it is phosphorylated in the presence of BDNF leading to inhibition of its actin-capping activity and stimulation of filopodia formation. Component of a complex with WHRN and MYO15A that localizes at stereocilia tips and is required for elongation of the stereocilia actin core. Indirectly involved in cell cycle progression; its degradation following ubiquitination being required during G2 phase to promote cell shape changes.

Cellular Location
Cytoplasm, cell cortex. Cell projection, ruffle membrane. Cell projection, growth cone. Cell projection, stereocilium {ECO:0000250, ECO:0000250|UniProtKB:Q08509}. Synapse, synaptosome Note=Localizes at the tips of the stereocilia of the inner and outer hair cells (By similarity). Localizes to the midzone of dividing cells {ECO:0000250, ECO:0000250|UniProtKB:Q08509}

Tissue Location
Expressed in all tissues analyzed, including heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas Expressed in all epithelial and fibroblastic lines examined and in some, but not all, hematopoietic cells

EPS8 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

EPS8 Antibody (N-term) Blocking Peptide - Images

EPS8 Antibody (N-term) Blocking Peptide - Background

Upon binding to EGF receptor, EPS8 enhances EGF-dependent mitogenic signals. It can bind multiple cellular targets. EPS8 is expressed in all tissues analyzed, including heart, brain, placenta, lung, liver, skeletal muscle, kidney, and pancreas. It is expressed in all epithelial and fibroblastic lines examined and in some, but not all, hematopoietic cells. EPS8 is phosphorylated by several receptor tyrosine kinases. The protein contains 1 PH domain and 1 SH3 domain.

EPS8 Antibody (N-term) Blocking Peptide - References

Wong, W.T., et al., Oncogene 9(10):3057-3061 (1994).