

EPS15 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP2159a**Specification**

EPS15 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession [P42566](#)
Other Accession [NP_001972](#)

EPS15 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 2060

Other Names

Epidermal growth factor receptor substrate 15, Protein Eps15, Protein AF-1p, EPS15, AF1P

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP2159a](/product/products/AP2159a) was selected from the N-term region of human EPS15. 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.

EPS15 Antibody (N-term) Blocking Peptide - Protein Information

Name EPS15

Synonyms AF1P

Function

Involved in cell growth regulation. May be involved in the regulation of mitogenic signals and control of cell proliferation. Involved in the internalization of ligand-inducible receptors of the receptor tyrosine kinase (RTK) type, in particular EGFR. Plays a role in the assembly of clathrin-coated pits (CCPs). Acts as a clathrin adapter required for post-Golgi trafficking. Seems to be involved in CCPs maturation including invagination or budding. Involved in endocytosis of integrin beta-1 (ITGB1) and transferrin receptor (TFR); internalization of ITGB1 as DAB2-dependent cargo but not TFR seems to require association with DAB2.

Cellular Location

Cytoplasm. Cell membrane; Peripheral membrane protein; Cytoplasmic side. Membrane, clathrin-coated pit Note=Recruited to the plasma membrane upon EGFR activation and localizes to coated pits. Colocalizes with UBQLN1 in ubiquitin-rich cytoplasmic aggregates that are not endocytic compartments and in cytoplasmic juxtanuclear structures called aggresomes

Tissue Location

Ubiquitously expressed.

EPS15 Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

EPS15 Antibody (N-term) Blocking Peptide - Images**EPS15 Antibody (N-term) Blocking Peptide - Background**

EPS15 is involved in cell growth regulation, possibly via the regulation of mitogenic signals and control of cell proliferation. EPS15 also participates in the internalization of ligand-inducible receptors of the receptor tyrosine kinase (RTK) type, in particular EGFR. Potential interaction partners include AP2A2, STN2, EPN1, and CRK via its SH3-binding sites. EPS15 is ubiquitously expressed. Phosphorylation on Tyr-849 is involved in the internalization of EGFR. EPS15 is not required for membrane translocation after EGF treatment or for targeting to coated pits, but essential for a subsequent step in EGFR endocytosis. This protein is involved in a t(1;11)(p32;q23) chromosomal translocation in acute leukemias causing fusion to the trithorax (MLL or HRX) gene product which contains DNA-binding motifs resulting in a rogue activator protein. Structurally, EPS15 contains 2 EF-hand calcium-binding domains, 3 EH domains, and 2 ubiquitin-interacting motif (UIM) repeats.

EPS15 Antibody (N-term) Blocking Peptide - References

de Beer, T., et al., Nat. Struct. Biol. 7(11):1018-1022 (2000). Enmon, J.L., et al., Biochemistry 39(15):4309-4319 (2000). de Beer, T., et al., Science 281(5381):1357-1360 (1998). Chen, H., et al., Nature 394(6695):793-797 (1998). Matsuda, M., et al., J. Biol. Chem. 271(24):14468-14472 (1996).