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Epsin 1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55059

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q9Y6I3
Reactivity	Rat, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	60293
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Epsin 1/EPN1
Epitope Specificity	101-200/576
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm (By similarity). Cell membrane; Peripheral membrane protein (By similarity). Nucleus (By similarity). Membrane, clathrin-coated pit (By similarity). Note=Associated with the cytoplasmic membrane at sites where clathrin-coated pits are forming. Colocalizes with clathrin and AP-2 in a punctate pattern on the plasma membrane. Detected in presynaptic nerve terminals and in Golgi stacks. May shuttle to the nucleus when associated with ZBTB16/ZNF145 (By similarity).
SIMILARITY	Belongs to the epsin family. Contains 1 ENTH (epsin N-terminal homology) domain. Contains 3 UIM (ubiquitin-interacting motif) repeats.
SUBUNIT	Monomer. Binds clathrin, ZBTB16/ZNF145 and ITSN1. Binds ubiquitinated proteins (By similarity). Binds REPS2, EPS15, AP2A1 and AP2A2. Interacts with RALBP1 in a complex also containing NUMB and TFAP2A during interphase and mitosis. Interacts with AP2B1. [SUBCELLULAR LOCATION]
Post-translational modifications	Phosphorylated on serine and/or threonine residues in mitotic cells. Phosphorylation reduces interaction with REPS2, AP-2 and the membrane fraction. Depolarization of synaptosomes results in dephosphorylation. Ubiquitinated (By similarity).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Epsin 1 is an endocytic accessory protein, with significant similarity to the Xenopus mitotic phosphoprotein MP90. Epsin 1 interacts with Eps15 (the ?subunit of the Clathrin adaptor AP2), Clathrin and other accessory proteins. The mitotic phosphorylation of these proteins may be one of the mechanisms by which the invagination of Clathrin-coated pits is blocked in mitosis. Both Epsin and Eps15, like other cytosolic components of the synaptic vesicle endo-cytic machinery, undergo constitutive phosphorylation and depolarization-dependent dephosphorylation in nerve terminals. Epsin 1 also contributes to the mechanism of Clathrin-vesicle-dependent endocytosis. The human Epsin 1 protein contains an Epsin N-terminal homology (ENTH) region and a single Clathrin-binding (LVDLD) motif. Epsin 1 localizes to the leading edge of a vesicular coated pit where the membrane is being actively bent.

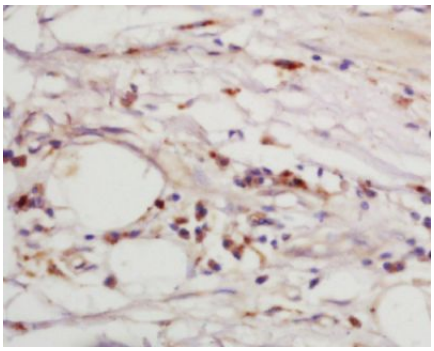
Additional Information

Gene ID	29924
Other Names	Epsin-1, EH domain-binding mitotic phosphoprotein, EPS-15-interacting protein 1, EPN1
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:50,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
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	EPN1
Function	Binds to membranes enriched in phosphatidylinositol 4,5- bisphosphate (PtdIns(4,5)P2). Modifies membrane curvature and facilitates the formation of clathrin-coated invaginations (By similarity). Regulates receptor-mediated endocytosis (PubMed:10393179, PubMed:10557078).
Cellular Location	Cytoplasm. Cell membrane; Peripheral membrane protein. Nucleus. Membrane, clathrin-coated pit Note=Associated with the cytoplasmic membrane at sites where clathrin- coated pits are forming. Colocalizes with clathrin and AP-2 in a punctate pattern on the plasma membrane. Detected in presynaptic nerve terminals and in Golgi stacks. May shuttle to the nucleus when associated with ZBTB16/ZNF145 (By similarity).

Images



Tissue/cell: human lung tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-Epsin 1 Polyclonal Antibody, Unconjugated(AP55059) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining