

Product datasheet

Anti-PTP epsilon antibody [3E1] ab123902

3 Images

Overview

Product name	Anti-PTP epsilon antibody [3E1]
Description	Mouse monoclonal [3E1] to PTP epsilon
Tested applications	Suitable for: IHC-P, Flow Cyt, ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Recombinant full length, Human PTP epsilon produced in HEK293T cells (NP_006495).
Positive control	Human liver tissue; COS7 cells transiently transfected with pCMV6-ENTRY PTP epsilon; HEK293T cells transfected with a PTP epsilon overexpress plasmid
General notes	Dilute in PBS (pH7.3) before use. Stable for 12 months from date of receipt.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	pH: 7.30 Preservative: 0.02% Sodium azide Constituents: 48% PBS, 50% Glycerol, 1% BSA
Purity	Protein G purified
Purification notes	ab123902 was purified from mouse ascites fluids by affinity chromatography.
Clonality	Monoclonal
Clone number	3E1
Isotype	IgG1

Applications

Our [Abpromise guarantee](#) covers the use of **ab123902** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/50 - 1/150.

Application	Abreviews	Notes
Flow Cyt		1/100. ab170190 -Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
ICC/IF		1/100.

Target

Function

Isoform 1 plays a critical role in signaling transduction pathways and phosphoprotein network topology in red blood cells. May play a role in osteoclast formation and function.

Isoform 2 acts as a negative regulator of insulin receptor (IR) signaling in skeletal muscle. Regulates insulin-induced tyrosine phosphorylation of insulin receptor (IR) and insulin receptor substrate 1 (IRS-1), phosphorylation of protein kinase B and glycogen synthase kinase-3 and insulin induced stimulation of glucose uptake.

Isoform 1 and isoform 2 act as a negative regulator of FcεRI-mediated signal transduction leading to cytokine production and degranulation, most likely by acting at the level of SYK to affect downstream events such as phosphorylation of SLP76 and LAT and mobilization of Ca(2+).

Tissue specificity

Expressed in giant cell tumor (osteoclastoma rich in multinucleated osteoclastic cells).

Sequence similarities

Belongs to the protein-tyrosine phosphatase family. Receptor class 4 subfamily. Contains 2 tyrosine-protein phosphatase domains.

Domain

The tyrosine-protein phosphatase 2 domain (D2) mediates dimerization. The extreme N- and C-termini of the D2 domain act to inhibit dimerization and removal of these sequences increases dimerization and inhibits enzyme activity.

Post-translational modifications

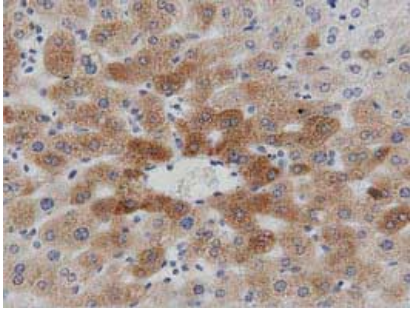
A catalytically active cytoplasmic form (p65) is produced by proteolytic cleavage of either isoform 1, isoform 2 or isoform 3.

Isoform 1 and isoform 2 are phosphorylated on tyrosine residues by tyrosine kinase Neu. Isoform 1 is glycosylated.

Cellular localization

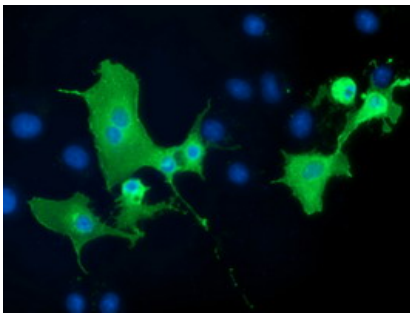
Cytoplasm; Cell membrane and Cytoplasm. Predominantly cytoplasmic. A small fraction is also associated with nucleus and membrane. Insulin induces translocation to the membrane.

Images



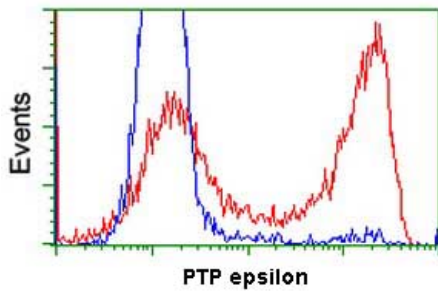
ab123902, at 1/50 dilution, staining PTP epsilon in paraffin-embedded Human liver tissue by Immunohistochemistry.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-PTP epsilon antibody [3E1] (ab123902)



ab123902, at 1/100 dilution, staining PTP epsilon in COS7 cells transiently transfected with pCMV6-ENTRY PTP epsilon by Immunofluorescence.

Immunocytochemistry/ Immunofluorescence - Anti-PTP epsilon antibody [3E1] (ab123902)



HEK293T cells transfected with either a PTP epsilon overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained using ab123902 at 1/100 dilution, and then analyzed by flow cytometry.

Flow Cytometry - Anti-PTP epsilon antibody [3E1] (ab123902)

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