

Product datasheet

Anti-SHIP-1 (phospho Y1020) antibody [EPR425] ab96402

Recombinant RabMAb

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Overview

Product name	Anti-SHIP-1 (phospho Y1020) antibody [EPR425]
Description	Rabbit monoclonal [EPR425] to SHIP-1 (phospho Y1020)
Host species	Rabbit
Tested applications	Suitable for: WB Unsuitable for: Flow Cyt or IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Raji whole cell lysate - treated with pervanadate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant</p>
Purity	Protein A purified

Clonality	Monoclonal
Clone number	EPR425
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab96402 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
WB		1/1000 - 1/10000. Detects a band of approximately 145 kDa (predicted molecular weight: 133 kDa).

Application notes Is unsuitable for Flow Cyt or IHC-P.

Target

Function Phosphatidylinositol (PtdIns) phosphatase that specifically hydrolyzes the 5-phosphate of phosphatidylinositol-3,4,5-trisphosphate (PtdIns(3,4,5)P₃) to produce PtdIns(3,4)P₂, thereby negatively regulating the PI3K (phosphoinositide 3-kinase) pathways. Acts as a negative regulator of B-cell antigen receptor signaling. Mediates signaling from the FC-gamma-RIIB receptor (FCGR2B), playing a central role in terminating signal transduction from activating immune/hematopoietic cell receptor systems. Acts as a negative regulator of myeloid cell proliferation/survival and chemotaxis, mast cell degranulation, immune cells homeostasis, integrin alpha-IIb/beta-3 signaling in platelets and JNK signaling in B-cells. Regulates proliferation of osteoclast precursors, macrophage programming, phagocytosis and activation and is required for endotoxin tolerance. Involved in the control of cell-cell junctions, CD32a signaling in neutrophils and modulation of EGF-induced phospholipase C activity. Key regulator of neutrophil migration, by governing the formation of the leading edge and polarization required for chemotaxis. Modulates FCGR3/CD16-mediated cytotoxicity in NK cells. Mediates the activin/TGF-beta-induced apoptosis through its Smad-dependent expression. May also hydrolyze PtdIns(1,3,4,5)P₄, and could thus affect the levels of the higher inositol polyphosphates like InsP₆.

Tissue specificity Specifically expressed in immune and hematopoietic cells. Expressed in bone marrow and blood cells. Levels vary considerably within this compartment. Present in at least 74% of immature CD34+ cells, whereas within the more mature population of CD33+ cells, it is present in only 10% of cells. Present in the majority of T-cells, while it is present in a minority of B-cells (at protein level).

Sequence similarities Belongs to the inositol-1,4,5-trisphosphate 5-phosphatase family. Contains 1 SH2 domain.

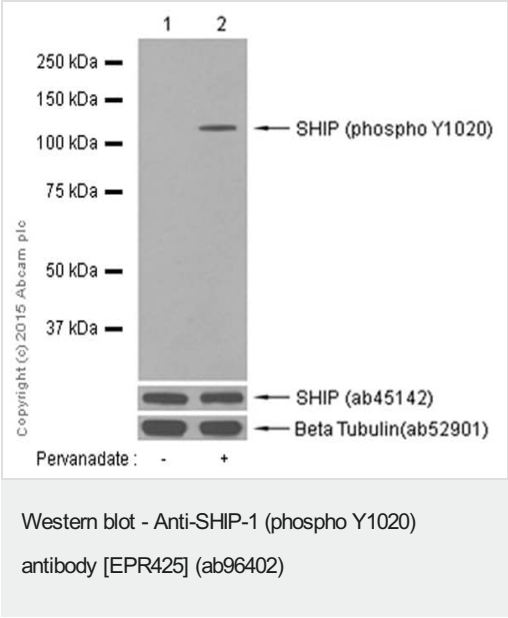
Domain The SH2 domain interacts with tyrosine phosphorylated forms of proteins such as SHC1 or PTPN11/SHP-2. It competes with that of GRB2 for binding to phosphorylated SHC1 to inhibit the Ras pathway. It is also required for tyrosine phosphorylation. The NPXY sequence motif found in many tyrosine-phosphorylated proteins is required for the specific binding of the PID domain.

Post-translational modifications Tyrosine phosphorylated by the members of the SRC family after exposure to a diverse array of extracellular stimuli such as cytokines, growth factors, antibodies, chemokines, integrin ligands and hypertonic and oxidative stress. Phosphorylated upon IgG receptor FCGR2B-binding.

Cellular localization

Cytoplasm. Membrane. Translocates to the plasma membrane when activated, translocation is probably due to different mechanisms depending on the stimulus and cell type. Partly translocated via its SH2 domain which mediates interaction with tyrosine phosphorylated receptors such as the FC-gamma-R1IB receptor (FCGR2B) or CD16/FCGR3. Tyrosine phosphorylation may also participate to membrane localization.

Images



All lanes : Anti-SHIP-1 (phospho Y1020) antibody [EPR425] (ab96402) at 1/2000 dilution

Lane 1 : Raji whole cell lysate - untreated

Lane 2 : Raji whole cell lysate - treated with pervanadate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Peroxidase-conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 133 kDa

Observed band size: 145 kDa

Exposure time: 3 minutes

Blocking and dilution buffer: 5% NFDM/TBST.

Why choose a recombinant antibody?

Research with confidence
Consistent and reproducible results

Long-term and scalable supply
Recombinant technology

Success from the first experiment
Confirmed specificity

Ethical standards compliant
Animal-free production

Anti-SHIP-1 (phospho Y1020) antibody [EPR425] (ab96402)

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