abcam

Product datasheet

# Anti-SHP2 (phospho Y582) antibody [EP509Y] ab62379

RabMAb

1 References 1 Image

## Overview

| | |
|---|---|
| **Product name** | Anti-SHP2 (phospho Y582) antibody [EP509Y] |
| **Description** | Rabbit monoclonal [EP509Y] to SHP2 (phospho Y582) |
| **Host species** | Rabbit |
| **Tested applications** | **Suitable for:** WB<br>**Unsuitable for:** Flow Cyt,ICC,ICC/IF or IP |
| **Species reactivity** | **Reacts with:** Human |
| **Immunogen** | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| **Positive control** | WB: Jurkat cell lysate (treated with pervanadate). |
| **General notes** | Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.<br><br>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.<br><br>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As<br><br>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information. |

## Properties

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| **Form** | Liquid |
| **Storage instructions** | Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C. |
| **Storage buffer** | pH: 7.20<br>Preservative: 0.05% Sodium azide<br>Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant |
| **Purity** | Tissue culture supernatant |

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|---|---|
| **Clonality** | Monoclonal |
| **Clone number** | EP509Y |
| **Isotype** | IgG |

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab62379 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** | | 1/25000 - 1/50000. Detects a band of approximately 68 kDa (predicted molecular weight: 68 kDa). |

**Application notes** Is unsuitable for Flow Cyt,ICC,ICC/IF or IP.

## Target

**Function** Acts downstream of various receptor and cytoplasmic protein tyrosine kinases to participate in the signal transduction from the cell surface to the nucleus.

**Tissue specificity** Widely expressed, with highest levels in heart, brain, and skeletal muscle.

**Involvement in disease** Defects in PTPN11 are the cause of LEOPARD syndrome type 1 (LEOPARD1) [MIM:151100]. It is an autosomal dominant disorder allelic with Noonan syndrome. The acronym LEOPARD stands for lentigines, electrocardiographic conduction abnormalities, ocular hypertelorism, pulmonic stenosis, abnormalities of genitalia, retardation of growth, and deafness.
Defects in PTPN11 are the cause of Noonan syndrome type 1 (NS1) [MIM:163950]. Noonan syndrome (NS) is a disorder characterized by dysmorphic facial features, short stature, hypertelorism, cardiac anomalies, deafness, motor delay, and a bleeding diathesis. Some patients with Noonan syndrome type 1 develop multiple giant cell lesions of the jaw or other bony or soft tissues, which are classified as pigmented villomoduolar synovitis (PVNS) when occurring in the jaw or joints. Note=Mutations in PTPN11 account for more than 50% of the cases. Rarely, NS is associated with juvenile myelomonocytic leukemia (JMML). NS1 inheritance is autosomal dominant.
Defects in PTPN11 are a cause of juvenile myelomonocytic leukemia (JMML) [MIM:607785]. JMML is a pediatric myelodysplastic syndrome that constitutes approximately 30% of childhood cases of myelodysplastic syndrome (MDS) and 2% of leukemia. It is characterized by leukocytosis with tissue infiltration and in vitro hypersensitivity of myeloid progenitors to granulocyte-macrophage colony stimulating factor.
Defects in PTPN11 are a cause of metachondromatosis (MC) [MIM:156250]. It is a skeletal disorder with radiologic fetarures of both multiple exostoses and Ollier disease, characterized by the presence of multiple enchondromas and osteochondroma-like lesions.

**Sequence similarities** Belongs to the protein-tyrosine phosphatase family. Non-receptor class 2 subfamily.
Contains 2 SH2 domains.
Contains 1 tyrosine-protein phosphatase domain.

**Domain** The SH2 domains repress phosphatase activity. Binding of these domains to phosphotyrosine-containing proteins relieves this auto-inhibition, possibly by inducing a conformational change in the enzyme.

**Post-translational** Phosphorylated on Tyr-546 and Tyr-584 upon receptor protein tyrosine kinase activation; which

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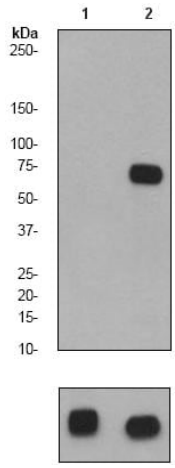
|---|---|
| **modifications** | creates a binding site for GRB2 and other SH2-containing proteins. |
| **Cellular localization** | Cytoplasm. |

## Images




Western blot - Anti-SHP2 (phospho Y582) antibody [EP509Y] (ab62379)

**All lanes :** Anti-SHP2 (phospho Y582) antibody [EP509Y] (ab62379) at 1/50000 dilution

**Lane 1 :** Jurkat cell lysate (untreated)
**Lane 2 :** Jurkat cell lysate (treated with pervanadate)

Lysates/proteins at 10 µg per lane.

**Secondary**
**All lanes :** Goat anti-Rabbit HRP conjugate at 1/2000 dilution

**Predicted band size:** 68 kDa
**Observed band size:** 68 kDa

The bottom image shows beta Tubulin. Beta Tubulin has been included as a loading control



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