

## Product datasheet

# Anti-SHP2 antibody ab17753

★★★★☆ 1 Abreviews

### Overview

<b>Product name</b>	Anti-SHP2 antibody
<b>Description</b>	Rabbit polyclonal to SHP2
<b>Tested applications</b>	<b>Suitable for:</b> WB, IP, ICC, Neutralising
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Fusion protein, corresponding to amino acids 2-216 of Mouse SHP2.
<b>Positive control</b>	Non stimulated A431 cell lysate.

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.05% Sodium Azide Constituents: 0.1M Tris glycine. pH 7.0.
<b>Purity</b>	Protein A purified
<b>Purification notes</b>	Purified by affinity chromatography.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

Our [Abpromise guarantee](#) covers the use of **ab17753** 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	★★★★☆	Use a concentration of 1 - 4 µg/ml. Detects a band of approximately 64 kDa. Apparent size increases to approximately 70kDa upon tyrosine phosphorylation.
IP		Use at an assay dependent dilution.

Application	Abreviews	Notes
ICC		Use a concentration of 10 µg/ml.
Neutralising		Use at an assay dependent dilution. Does not inhibit phosphotyrosine phosphatase activity.

## Target

<b>Function</b>	Acts downstream of various receptor and cytoplasmic protein tyrosine kinases to participate in the signal transduction from the cell surface to the nucleus.
<b>Tissue specificity</b>	Widely expressed, with highest levels in heart, brain, and skeletal muscle.
<b>Involvement in disease</b>	<p>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 lentiginosis, electrocardiographic conduction abnormalities, ocular hypertelorism, pulmonic stenosis, abnormalities of genitalia, retardation of growth, and deafness.</p> <p>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.</p> <p>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.</p> <p>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.</p>
<b>Sequence similarities</b>	<p>Belongs to the protein-tyrosine phosphatase family. Non-receptor class 2 subfamily.</p> <p>Contains 2 SH2 domains.</p> <p>Contains 1 tyrosine-protein phosphatase domain.</p>
<b>Domain</b>	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.
<b>Post-translational modifications</b>	Phosphorylated on Tyr-546 and Tyr-584 upon receptor protein tyrosine kinase activation; which creates a binding site for GRB2 and other SH2-containing proteins.
<b>Cellular localization</b>	Cytoplasm.

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