

### Anti-SHP2 antibody [EPR17829-9] ab187040

敲除验证 重组 RabMAb

3 References 5 图像

#### 概述

产品名称	Anti-SHP2抗体[EPR17829-9]
描述	兔单克隆抗体[EPR17829-9] to SHP2
宿主	Rabbit
经测试应用	适用于: IP, WB
种属反应性	与反应: Mouse, Rat, Human
免疫原	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: HeLa, Jurkat, HEK-293 and NIH/3T whole cell lysates; mouse brain and heart lysates; rat brain lysate. IP: HeLa and NIH/3T3 whole cell lysates.
常规说明	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

#### 性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
存储溶液	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR17829-9
同种型	IgG

## 应用

### The Abpromise guarantee

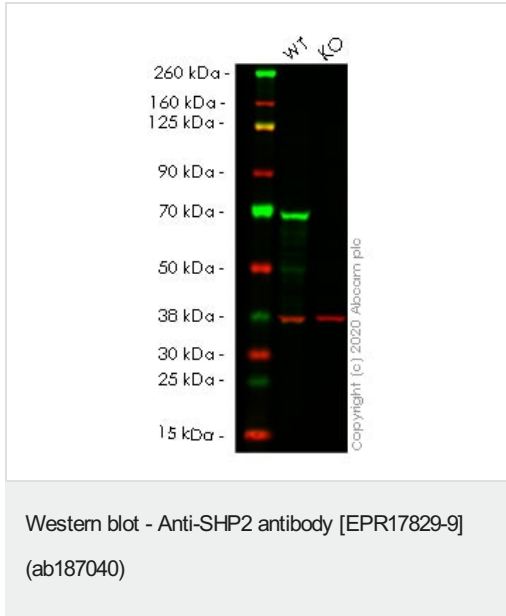
**Abpromise™**承诺保证使用ab187040于以下的经测试应用

“应用说明”部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IP		1/40.
WB		1/5000. Predicted molecular weight: 68 kDa.

## 靶标

<b>功能</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>组织特异性</b>	Widely expressed, with highest levels in heart, brain, and skeletal muscle.
<b>疾病相关</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 lentigines, 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>序列相似性</b>	Belongs to the protein-tyrosine phosphatase family. Non-receptor class 2 subfamily. Contains 2 SH2 domains. Contains 1 tyrosine-protein phosphatase domain.
<b>结构域</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>翻译后修饰</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>细胞定位</b>	Cytoplasm.



**All lanes :** Anti-SHP2 antibody [EPR17829-9] (ab187040) at 1/5000 dilution

**Lane 1 :** Wild-type HEK-293T cell lysate

**Lane 2 :** PTPN11 knockout HEK-293T cell lysate

Lysates/proteins at 20 µg per lane.

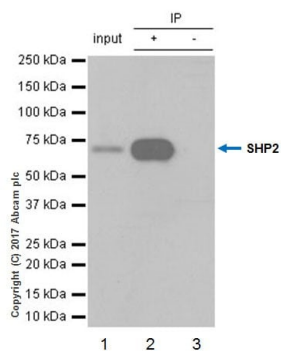
Performed under reducing conditions.

**Predicted band size:** 68 kDa

**Observed band size:** 68 kDa

**Lanes 1- 2:** Merged signal (red and green). Green - ab187040 observed at 68 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) observed at 37 kDa.

ab187040 was shown to react with SHP2 in wild-type HEK-293T cells in western blot. Loss of signal was observed when knockout cell line [ab266450](#) (knockout cell lysate [ab257618](#)) was used. Wild-type HEK-293T and PTPN11 knockout HEK-293T cell lysates were subjected to SDS-PAGE. Membrane was blocked for 1 hour at room temperature in 0.1% TBST with 3% non-fat dried milk. ab187040 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) overnight at 4°C at a 1 in 5000 dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye®800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunoprecipitation - Anti-SHP2 antibody [EPR17829-9] (ab187040)

SHP2 was immunoprecipitated from 1 mg of HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate with ab187040 at 1/40 dilution. Western blot was performed from the immunoprecipitate using ab187040 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/10,000 dilution.

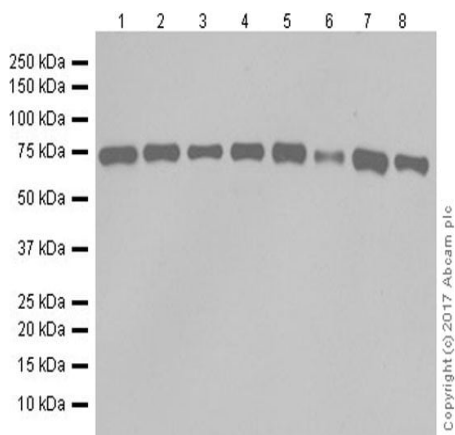
Lane 1: HeLa whole cell lysate 10 µg (Input).

Lane 2: ab187040 IP in HeLa whole cell lysate (+).

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab187040 in HeLa whole cell lysate (-).

Blocking and dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 3 minutes.



Western blot - Anti-SHP2 antibody [EPR17829-9] (ab187040)

**All lanes :** Anti-SHP2 antibody [EPR17829-9] (ab187040) at 1/5000 dilution

**Lane 1 :** HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate

**Lane 2 :** Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate

**Lane 3 :** HEK-293 (human epithelial cell line from embryonic kidney) whole cell lysate

**Lane 4 :** NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate

**Lane 5 :** Mouse brain tissue lysate

**Lane 6 :** Mouse heart tissue lysate

**Lane 7 :** Rat brain tissue lysate

**Lane 8 :** Rat heart tissue lysate

Lysates/proteins at 5 µg per lane.

## Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

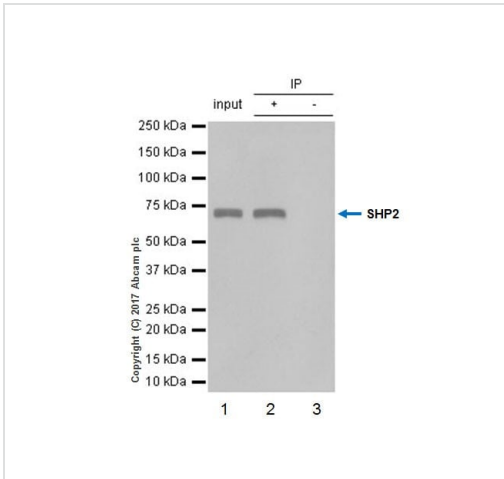
Developed using the ECL technique.

**Predicted band size:** 68 kDa

**Observed band size:** 68 kDa

**Exposure time:** 1 minute

Blocking and dilution buffer: 5% NFDm/TBST.



Immunoprecipitation - Anti-SHP2 antibody [EPR17829-9] (ab187040)

SHP2 was immunoprecipitated from 1 mg of NIH/3T3 (mouse embryo fibroblast cell line) whole cell lysate with ab187040 at 1/40 dilution. Western blot was performed from the immunoprecipitate using ab187040 at 1/1,000 dilution. VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)), was used for detection at 1/10,000 dilution.

Lane 1: NIH/3T3 whole cell lysate 10µg (Input).

Lane 2: ab187040 IP in NIH/3T3 whole cell lysate (+).

Lane 3: Rabbit monoclonal IgG ([ab172730](#)) instead of ab187040 in NIH/3T3 whole cell lysate (-).

Blocking and dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 1 second.

### 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-SHP2 antibody [EPR17829-9] (ab187040)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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