

## Product datasheet

# Anti-SHP1 antibody [Y476] - BSA and Azide free ab226008

**KO VALIDATED** Recombinant RabMAb<sup>®</sup>

★★★★☆ [1 Abreviews](#) [1 References](#) [8 Images](#)

### Overview

|                            |   |
|----------------------------|---|
| <b>Product name</b>        | Anti-SHP1 antibody [Y476] - BSA and Azide free  |
| <b>Description</b>         | Rabbit monoclonal [Y476] to SHP1 - BSA and Azide free   |
| <b>Host species</b>        | Rabbit  |
| <b>Specificity</b>         | The antibody is predicted to detect isoforms 1, 2 and 3 of human SHP1 based on sequence analysis.   |
| <b>Tested applications</b> | <b>Suitable for:</b> WB, IHC-P  |
| <b>Species reactivity</b>  | <b>Reacts with:</b> Mouse, Rat, Human   |
| <b>Immunogen</b>           | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.   |
| <b>Positive control</b>    | A431 cell lysate, Jurkat cell lysate, K562 cell lysate  |
| <b>General notes</b>       | <p>ab226008 is the carrier-free version of <a href="#">ab32559</a>.</p> <p>Our <b>carrier-free</b> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</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> |

### Properties

**Form** Liquid

|                             |   |
|-----------------------------|---|
| <b>Storage instructions</b> | Shipped at 4°C. Store at +4°C. Do Not Freeze. |
| <b>Storage buffer</b>       | pH: 7.20<br>Constituent: PBS                  |
| <b>Carrier free</b>         | Yes   |
| <b>Purity</b>               | Protein A purified                            |
| <b>Clonality</b>            | Monoclonal                                    |
| <b>Clone number</b>         | Y476  |
| <b>Isotype</b>              | IgG   |

## Applications

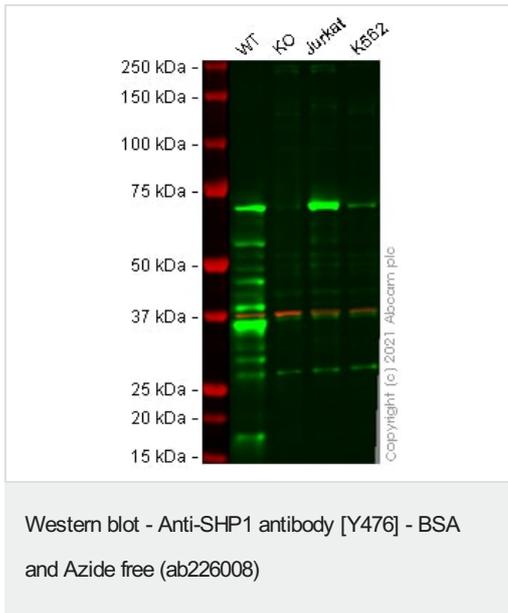
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab226008 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes   |
|-------------|-----------|---|
| WB          |           | Use at an assay dependent concentration. Detects a band of approximately 65 kDa (predicted molecular weight: 68 kDa).                                       |
| IHC-P       |           | Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. |

## Target

|   |   |
|---|---|
| <b>Function</b>                         | Plays a key role in hematopoiesis. This PTPase activity may directly link growth factor receptors and other signaling proteins through protein-tyrosine phosphorylation. The SH2 regions may interact with other cellular components to modulate its own phosphatase activity against interacting substrates. Together with MTUS1, induces UBE2V2 expression upon angiotensin II stimulation. |
| <b>Tissue specificity</b>               | Isoform 1 is expressed in hematopoietic cells. Isoform 2 is expressed in non-hematopoietic cells.   |
| <b>Sequence similarities</b>            | Belongs to the protein-tyrosine phosphatase family. Non-receptor class 2 subfamily.<br>Contains 2 SH2 domains.<br>Contains 1 tyrosine-protein phosphatase domain.   |
| <b>Post-translational modifications</b> | Phosphorylated on serine and tyrosine residues.   |
| <b>Cellular localization</b>            | Cytoplasm. Nucleus. In neurons, translocates into the nucleus after treatment with angiotensin II.  |

## Images



**All lanes :** Anti-SHP1 antibody [Y476] ([ab32559](#)) at 1/1000 dilution

**Lane 1 :** Wild-type THP-1 cell lysate

**Lane 2 :** PTPN6 knockout THP-1 cell lysate

**Lane 3 :** Jurkat cell lysate

**Lane 4 :** K562 cell lysate

Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

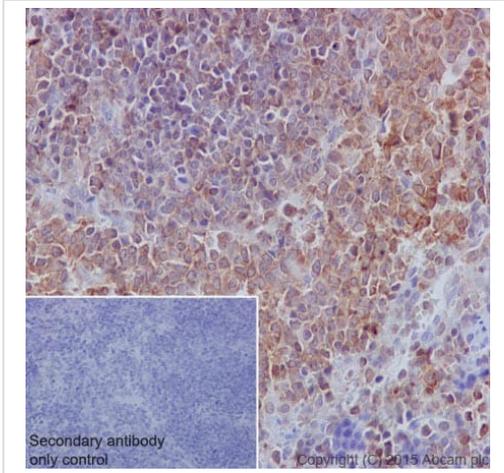
**Predicted band size:** 68 kDa

**Observed band size:** 70 kDa

This data was developed using the same antibody clone in a different buffer formulation ([ab32559](#)).

**Lanes 1 -4:** Merged signal (red and green). Green - [ab32559](#) observed at 70 kDa. Red - loading control [ab8245](#) (Mouse anti-GAPDH antibody [6C5]) observed at 37 kDa.

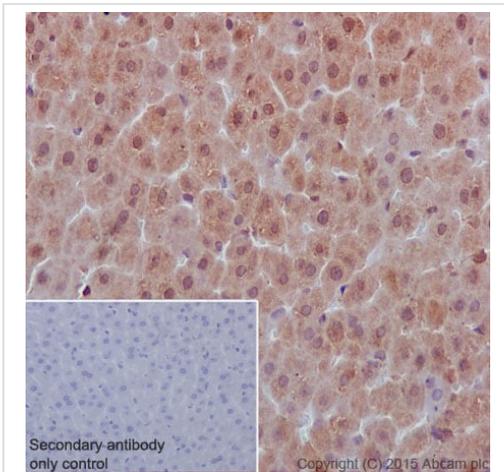
[ab32559](#) was shown to react with SHP1 in wild-type THP-1 cells in Western blot with loss of signal observed in PTPN6 knockout sample. Wild-type THP-1 and PTPN6 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween<sup>®</sup>) before incubation with [ab32559](#) and [ab8245](#) (Mouse anti-GAPDH antibody [6C5]) overnight at 4 °C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit IgG H&L (IRDye<sup>®</sup> 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye<sup>®</sup> 680RD) preabsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 h at room temperature before imaging.



Immunohistochemical staining of paraffin embedded rat spleen with purified **ab32559** at a working dilution of 1/100. The secondary antibody used is HRP goat anti-rabbit IgG H&L (**ab97051**) at 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab32559**).

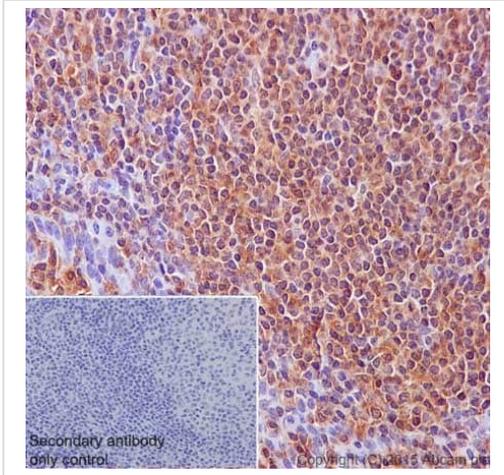
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SHP1 antibody [Y476] - BSA and Azide free (ab226008)



Immunohistochemical staining of paraffin embedded mouse liver with purified **ab32559** at a working dilution of 1/100. The secondary antibody used is HRP goat anti-rabbit IgG H&L (**ab97051**) at 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab32559**).

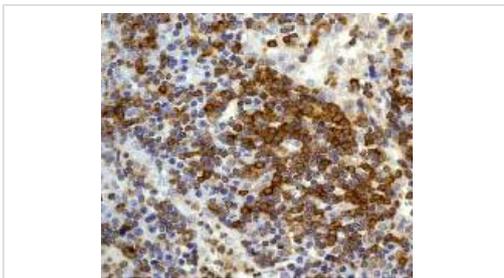
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SHP1 antibody [Y476] - BSA and Azide free (ab226008)



Immunohistochemical staining of paraffin embedded human tonsil with purified **ab32559** at a working dilution of 1/100. The secondary antibody used is HRP goat anti-rabbit IgG H&L (**ab97051**) at 1/500. The sample is counter-stained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab32559**).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SHP1 antibody [Y476] - BSA and Azide free (ab226008)



This IHC data was generated using the same anti-SHP1 antibody clone [Y476] in a different buffer formulation (cat# **ab32559**).

Unpurified **ab32559**, at a 1/50 dilution, staining human lymph node by immunohistochemistry, Paraffin embedded tissue.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SHP1 antibody [Y476] - BSA and Azide free (ab226008)

| Tissue Microarray (TMA) data for ab32559 |   |                       |                           |                    |   |                     |   |
|--|---|-----------------------|---------------------------|--------------------|---|---------------------|---|
| Mouse normal tissue samples              |   |                       | Rat normal tissue samples |                    |   |                     |   |
| Mouse cardiac muscle                     | x | Mouse pancreas        | ✓                         | Rat cardiac muscle | x | Rat pancreas        | ✓ |
| Mouse cerebrum                           | ✓ | Mouse skeletal muscle | x                         | Rat cerebrum       | ✓ | Rat skeletal muscle | x |
| Mouse colon                              | ✓ | Mouse skin            | x                         | Rat colon          | ✓ | Rat skin            | x |
| Mouse kidney                             | ✓ | Mouse spleen          | ✓                         | Rat kidney         | ✓ | Rat spleen          | ✓ |
| Mouse liver                              | ✓ | Mouse stomach         | ✓                         | Rat liver          | ✓ | Rat stomach         | ✓ |
| Mouse lung                               | ✓ | Mouse testis          | ✓                         | Rat lung           | ✓ | Rat testis          | ✓ |

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SHP1 antibody [Y476] - BSA and Azide free (ab226008)

Tissue Microarrays stained for " Anti-SHP1 antibody [Y476]" using "**ab32559**" in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes. The sections were incubated with **ab32559** for 30 mins at room temperature followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

| Tissue Microarray (TMA) data for ab32559 |   |                       |                                |                                      |   |                                |   |
|--|---|-----------------------|--------------------------------|--------------------------------------|---|--------------------------------|---|
| Human normal tissue samples              |   |                       | Human malignant tissue samples |                                      |   |                                |   |
| Human cardiac muscle                     | x | Human placenta        | x                              | Clear cell carcinoma of human kidney | x | Human hepatocellular carcinoma | ✓ |
| Human cerebrum                           | x | Human skeletal muscle | x                              | Human bladder cancer                 | ✓ | Human lung carcinoma           | ✓ |
| Human colon                              | ✓ | Human skin            | ✓                              | Human breast carcinoma               | ✓ | Human melanoma                 | ✓ |
| Human endometrium                        | ✓ | Human spleen          | ✓                              | Human cervical carcinoma             | ✓ | Human ovarian carcinoma        | ✓ |
| Human kidney                             | ✓ | Human stomach         | ✓                              | Human colon carcinoma                | ✓ | Human pancreatic carcinoma     | ✓ |
| Human liver                              | ✓ | Human testis          | ✓                              | Human endometrial carcinoma          | ✓ | Human prostatic hyperplasia    | ✓ |
| Human lung                               | ✓ | Human thyroid         | ✓                              | Human gastric adenocarcinoma         | ✓ | Human thyroid carcinoma        | ✓ |
| Human mammary gland                      | ✓ | Human tonsil          | ✓                              | Human glioma                         | ✓ |                                |   |
| Human pancreas                           | ✓ |                       |                                |                                      |   |                                |   |

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SHP1 antibody [Y476] - BSA and Azide free (ab226008)

Tissue Microarrays stained for " Anti-SHP1 antibody [Y476]" using "**ab32559**" in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0) for 20 minutes. The sections were incubated with **ab32559** for 30 mins at room temperature followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

### 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-SHP1 antibody [Y476] - BSA and Azide free  
(ab226008)

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

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