

Product datasheet

Anti-SHP2 (phospho Y542) antibody [EP508(2)Y] ab62322

Recombinant **RabMAb**

[7 References](#) [5 Images](#)

Overview

Product name	Anti-SHP2 (phospho Y542) antibody [EP508(2)Y]
Description	Rabbit monoclonal [EP508(2)Y] to SHP2 (phospho Y542)
Host species	Rabbit
Specificity	ab62322 detects SHP2 phosphorylated at Tyrosine 542.
Tested applications	Suitable for: ICC/IF, WB, IP Unsuitable for: Flow Cyt
Species reactivity	Reacts with: Mouse, Human
Immunogen	Synthetic phosphopeptide corresponding to residues surrounding Tyrosine 542 of human SHP2.
Positive control	Treated NIH/3T3 cell lysate.
General notes	Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.

Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to [RabMAb[®] patents](#).

We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

This product is a [recombinant rabbit monoclonal antibody](#).

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified

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.

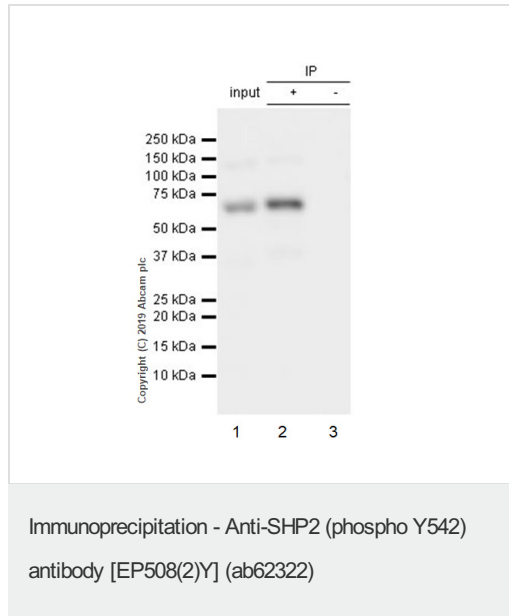
Post-translational modifications

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.

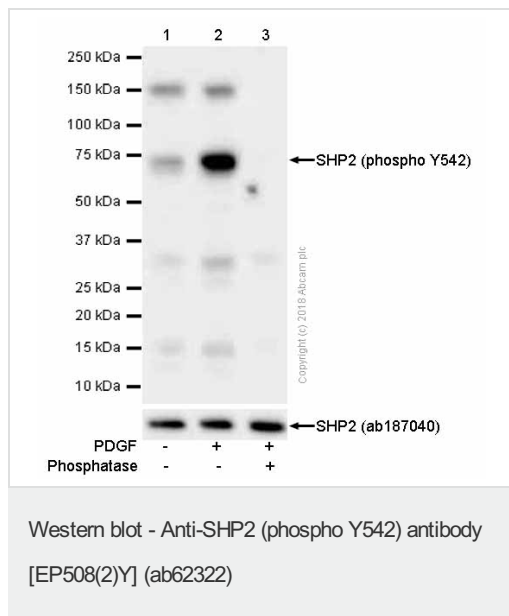
Cellular localization

Cytoplasm.

Images



ab62322 (purified) at 1:30 dilution (2µg) immunoprecipitating SHP2 in NIH/3T3 treated with 50ng/ml PDGF for 40min whole cell lysate. Lane 1 (input): NIH/3T3 (Mouse embryonic fibroblast) treated with 50ng/ml PDGF for 40min whole cell lysate 10µg. Lane 2 (+): ab62322 & NIH/3T3 treated with 50ng/ml PDGF for 40min whole cell lysate. Lane 3 (-): Rabbit monoclonal IgG ([ab172730](#)) instead of ab62322 in NIH/3T3 treated with 50ng/ml PDGF for 40min whole cell lysate. For western blotting, VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) was used for detection at 1:1000 dilution. Blocking and diluting buffer: 5% NFDm/TBST.



All lanes : Anti-SHP2 (phospho Y542) antibody [EP508(2)Y] (ab62322) at 1/1000 dilution (Purified)

Lane 1 : NIH/3T3 (Mouse embryonic fibroblast) whole cell lysates

Lane 2 : NIH/3T3 (Mouse embryonic fibroblast) treated with 40ng/ml PDGF for 40 minutes whole cell lysates

Lane 3 : NIH/3T3 (Mouse embryonic fibroblast) treated with 40ng/ml PDGF for 40 minutes then incubated with phosphatase

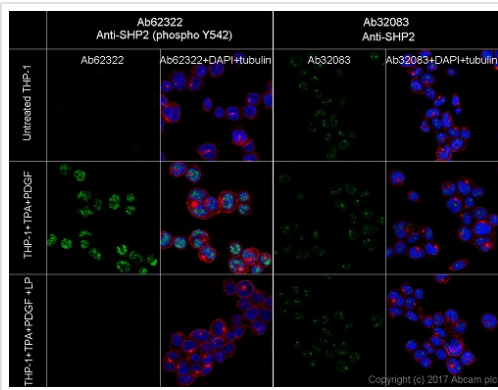
Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 68 kDa

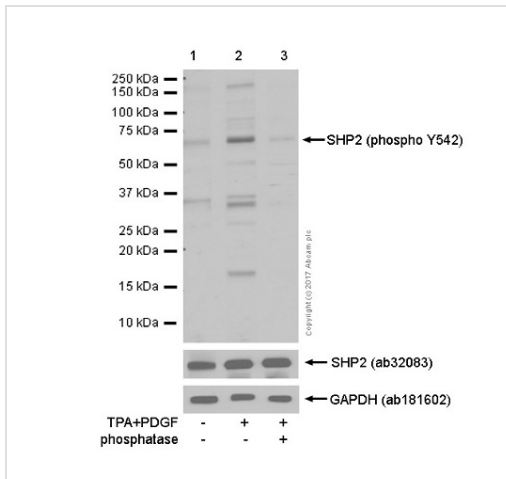
Observed band size: 68 kDa



Immunocytochemistry/ Immunofluorescence - Anti-SHP2 (phospho Y542) antibody [EP508(2)Y] (ab62322)

Ab62322 staining SHP2 in THP-1 cells (Human monocytic leukaemia cell line) by ICC/IF (immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% TritonX-100. Samples were incubated with purified ab62322 at 8.8 µg/ml. Secondary antibody used was AlexaFluor®488 Goat anti-Rabbit (ab150077) at 2 µg/ml. Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594)(ab195889) used as counterstain at 2.5 µg/ml . DAPI was used as nuclear counterstain. Confocal image showing the expression was increased after treatment with TPA 200nM for 24h and PDGF 50ng/ml for 30min, the signal decreased after treatment with Lambda Protein Phosphatase 311 for 2h.

This image was generated using the unpurified version of the product.



Western blot - Anti-SHP2 (phospho Y542) antibody [EP508(2)Y] (ab62322)

All lanes : Anti-SHP2 (phospho Y542) antibody [EP508(2)Y] (ab62322) at 1/200 dilution

Lane 1 : THP-1 (Human monocytic leukemia monocyte) whole cell lysates

Lane 2 : THP-1 (Human monocytic leukemia monocyte) treated with Phorbol-12-myristate-13-acetate and platelet-derived growth factor.

Lane 3 : THP-1 (Human monocytic leukemia monocyte) treated with Phorbol-12-myristate-13-acetate and platelet-derived growth factor. Then the membrane was incubated with phosphatase.

Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

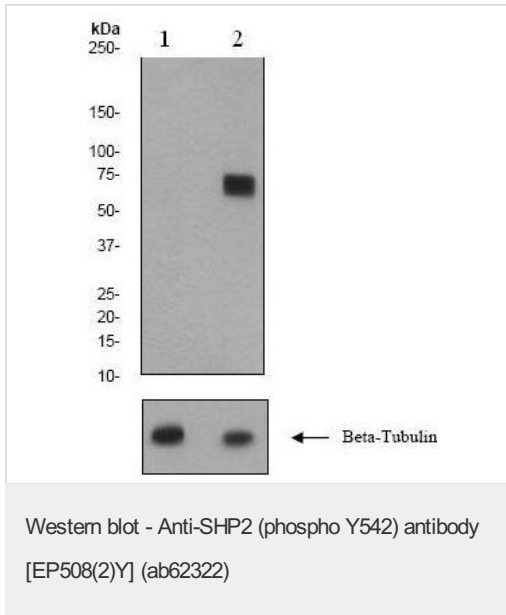
Predicted band size: 68 kDa

Observed band size: 68 kDa

Blocking and diluting buffer used was 5% NFD/MTBST.

Purified batch of ab62322 was used.

This image was generated using the unpurified version of the product.



All lanes : Anti-SHP2 (phospho Y542) antibody [EP508(2)Y] (ab62322) at 1/50000 dilution

Lane 1 : NIH/3T3 cell lysates; untreated

Lane 2 : NIH/3T3 cell lysates; treated with PDGF

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : goat anti-rabbit HRP conjugated, at 1/2000 dilution

Predicted band size: 68 kDa

Observed band size: 68 kDa

Beta Tubulin has been included as a loading control.

This image was generated using the unpurified version of the product.

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors