

DATASHEET

SHPTP2 (Phospho-Y542) Rabbit Polyclonal Antibody

CAT. NO. APA08691

KEY FEATURES

Target	SHPTP2 (Phospho-Y542)	Source / Host	Rabbit
Reactivity	Human, Mouse, Rat, Bovine, Chicken, Dog, Pig, Sheep, Rabbit	Clonality	Polyclonal
Applications	WB, IHC, IF/ICC	Conjugation	Unconjugated
Form / Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

BACKGROUND

Acts downstream of various receptor and cytoplasmic protein tyrosine kinases to participate in the signal transduction from the cell surface to the nucleus . Positively regulates MAPK signal transduction pathway . Dephosphorylates GAB1, ARHGAP35 and EGFR . Dephosphorylates ROCK2 at 'Tyr-722' resulting in stimulation of its RhoA binding activity . Dephosphorylates CDC73 . Dephosphorylates SOX9 on tyrosine residues, leading to inactivate SOX9 and promote ossification . Dephosphorylates tyrosine-phosphorylated NEDD9/CAS-L . Acts as an effector of PDCD1-mediated inhibition of T-cell response: recruited by phosphorylated PDCD1, mediating dephosphorylation of key T-cell receptor (TCR) proximal signaling molecules, leading to TCR signaling inhibition .

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:50 - 1:100
IF/ICC	1:50 - 1:200

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

Description	Rabbit polyclonal antibody to SHPTP2 (Phospho-Y542)
Specificity	Recognizes endogenous levels of SHPTP2 protein only when phosphorylated at Y542.
Antibody Type	Primary antibody
Immunogen	KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding Y542 of human SHPTP2 protein. The exact sequence is proprietary.
Purification	The antibody was purified by immunogen affinity chromatography.
Molecular Weight	Predicted: 68 kD; Observed: 72 kD
Form/Buffer	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	PTP2C; SHPTP2; Tyrosine-protein phosphatase non-receptor type 11; Protein-tyrosine phosphatase 1D; PTP-1D; Protein-tyrosine phosphatase 2C; PTP-2C; SH-PTP2; SHP-2; Shp2; SH-PTP3
Gene Symbol	PTPN11
Entrez Gene	5781(Human); 19247(Mouse); 25622(Rat)
SwissProt	Q06124(Human); P35235(Mouse); P41499(Rat)

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

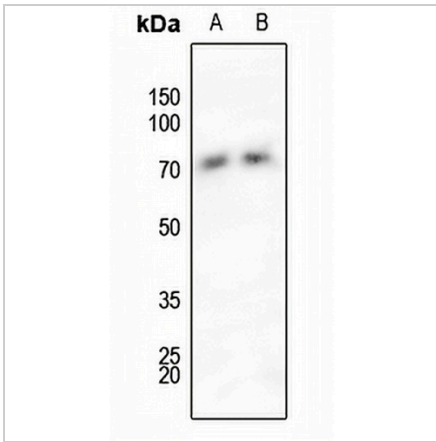
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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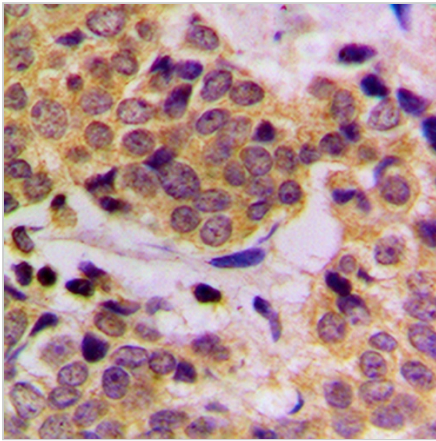
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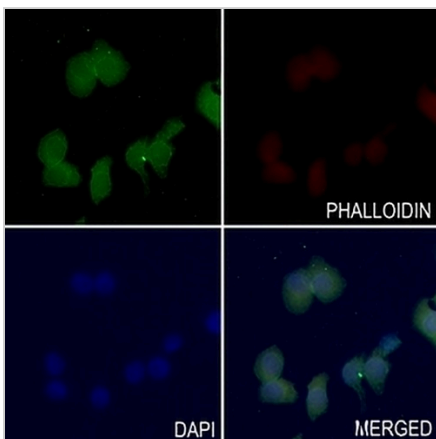
DATA



Western blot analysis of SHPTP2 (Phospho-Y542) expression in LOVO (A), C6 (B) whole cell lysates. (Predicted band size: 68 kD; Observed band size: 72 kD)



Immunohistochemical analysis of SHPTP2 (Phospho-Y542) staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



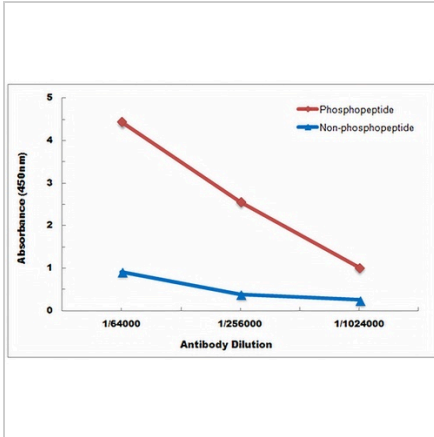
Immunofluorescent analysis of SHPTP2 (Phospho-Y542) staining in SGC7901 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AREX® Fluor 488 - conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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DATA (CONTINUED)



Direct ELISA antibody dose-response curve using Anti-SHPTP2 (Phospho-Y542) Antibody. Antigen (Phosphopeptide and non-phosphopeptide) concentration is 5 ug/ml. Goat Anti-Rabbit IgG (H&L) - HRP was used as the secondary antibody, and signal was developed by TMB substrate.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.