

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat SHP-2 in Western blots. Does not detect SHP-1 in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human SHP-2 Thr2-Arg593 Accession # NP_002825
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Knockout Validated	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Src-Homology domain-2 containing protein tyrosine Phosphatase 2 (SHP-2), also called protein tyrosine phosphatase, non-receptor type 11 (PTPN11), PTP1D, PTP2C, and SYP, is an enzyme that dephosphorylates tyrosine residues in proteins. The protein contains two Src homology 2 (SH2) domains, which both regulate the activity of the enzyme (1) and allow it to selectively bind to SH2 sites on proteins such as Dok1, IRS1, and the insulin receptor (2). SHP-2 plays a unique stimulatory role in cell signaling. Cells lacking SHP-2 have poor mobility because the hyper-phosphorylation of FAK and other proteins in the focal adhesion complex (3) prevents turnover of cellular attachment points. Without SHP-2, sustained ERK stimulation does not take place (4). The Y992 phosphorylation site of EGFR is a particularly good substrate for SHP-2 (5) and a phosphopeptide containing this sequence can be used to measure the activity of the enzyme (R&D Systems, Catalog # ES006) by detecting release of phosphate (R&D Systems, Catalog # DY996).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.