

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat SH2B1 in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human SH2B1 Pro317-Leu467 Accession # Q9NRF2
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 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.

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

SH2B1 (Src-Homology 2 Domain-Containing protein B1/1B; also SH2B1α, PSM and SH2B adaptor protein 1) is a member of the SH2B adapter family of proteins. Although its predicted MW is 80 kDa, it runs anomalously at 90-102 kDa in SDS-Page. SH2B1 is a nucleocytoplasmic protein that is widely expressed in cells such as skeletal muscle cells, neurons, and adipocytes. It serves as a linker between Jak2 and multiple downstream molecules such as Rac and IRS1. It does this following phosphorylation on a number of potential sites. It also promotes the enzymatic activity of associated receptor kinases, thus potentiating ligand-receptor interactions. SH2B1 appears to bind to nonphosphorylated Jaks as a monomer, while Jak phosphorylation induces SH2B1 dimerization. SH2B1 is further reported to form a homopentamer, and to oligomerize with SH2B2. Human SH2B1(α) is 756 amino acids amino acids (aa) in length. It contains one dimerization segment (aa 24-85), an NLS (aa 224-233), one pleckstrin homology region (aa 249-378) and an SH2 domain (aa 521-625). At least three utilized phosphorylation sites exist. There are at least two splice variants for SH2B1. The 90-92 kDa SH2B1β isoform shows a 39 aa substitution for aa 633-756, while the SH2B1γ isoform possesses a 50 aa substitution for the same aa range (i.e., aa 633-756). Over aa 317-467, human SH2B1 shares 92% aa identity with mouse SH2B1.

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.