

Human/Mouse/Rat SH2B1 Antibody

Antigen Affinity-purified Polyclonal Goat IgG Catalog Number: AF6915

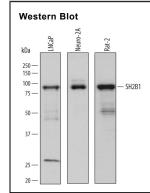
DESCRIPTION	
Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat SH2B1 in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	E. coli-derived recombinant human SH2B1 Pro317-Leu467 Accession # Q9NRF2
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

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.

	Recommended Concentration	Sample
Western Blot	1 μg/mL	See Below

DATA



Detection of Human, Mouse, and Rat SH2B1 by Western Blot. Western blot shows lysates of LNCaP human prostate cancer cell line, Neuro-2A mouse neuroblastoma cell line, and Rat-2 rat embryonic fibroblast cell line. PVDF membrane was probed with 1 μg/mL of Goat Anti-Human/Mouse/Rat SH2B1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6915) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for SH2B1 at approximately 90 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

PKE	PAKA	HON	AND	SIC	JKAC	jΕ

Reconstitution Sterile PBS to a final concentration of 0.2 mg/mL

ShippingThe product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

Stability & Storage Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.

Rev. 2/6/2018 Page 1 of 1

