

Rabbit SPRED2 Polyclonal Antibody | anti-SPRED2 antibody

Anti-SPRED2 Antibody Picoband

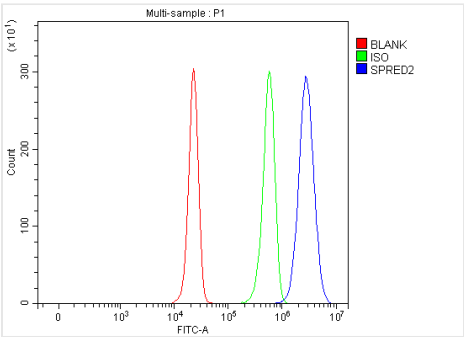
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA127363	Rabbit	Human, Mouse, Rat	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Western Blot

PRODUCT SYNONYMS

SPRED2; Polyclonal Antibody; Anti-SPRED2 Antibody Picoband; AP-2 complex subunit mu; Rho-related GTP-binding protein Rho6; Rho family GTPase 1; Rnd1; RND1; RHO6; anti-SPRED2 antibody

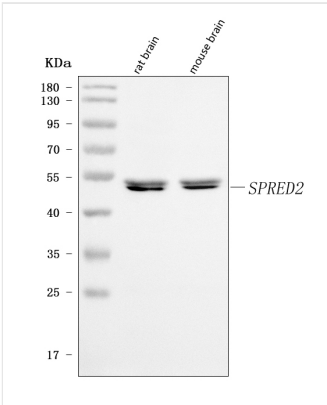
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Mostly Expressed in brain and liver.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Applicable Applications for anti-SPRED2 antibody	ELISA, FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Immunogen	E coli-derived human SPRED2 recombinant protein (Position: R40-R298).
Subcellular Localization	Cell membrane, Lipid-anchor, Cytoplasmic side, Cytoplasm, cytoskeleton
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	Lacks intrinsic GTPase activity. Has a low affinity for GDP, and constitutively binds GTP. Controls rearrangements of the actin cytoskeleton. Induces the Rac-dependent neuritic process formation in part by disruption of the cortical actin filaments. Causes the formation of many neuritic processes from the cell body with disruption of the cortical actin filaments.
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.



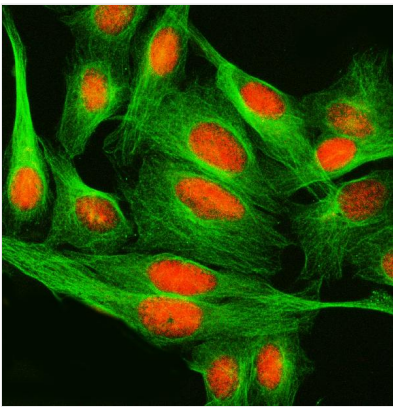
FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of HepG2 cells using anti-SPRED2 antibody (AAA127363).Overlay histogram showing HepG2 cells stained with AAA127363 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-SPRED2 Antibody (AAA127363, 1ug/1x106 cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



WB (Western Blot)

Figure 1. Western blot analysis of SPRED2 using anti-SPRED2 antibody (AAA127363).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: rat brain tissue lysates,Lane 2: mouse brain tissue lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SPRED2 antigen affinity purified polyclonal antibody (#AAA127363) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for SPRED2 at approximately 53 kDa. The expected band size for SPRED2 is at 48 kDa.



IF (Immunofluorescence)

Figure 2. IF analysis of SPRED2 using anti-SPRED2 antibody (AAA127363) and anti-Tubulin Alpha antibody (M03989-3).SPRED2 was detected in immunocytochemical section of U2OS cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-SPRED2 Antibody (AAA127363) and mouse anti-Tubulin Alpha antibody (M03989-3) overnight at 4 degree C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) and DyLight488 Conjugated Goat Anti-Mouse IgG (BA1126) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37 degree C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

ADDITIONAL INFORMATION

Related Product Information for anti-SPRED2 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product Categories/Family for anti-SPRED2 antibody	Primary Antibodies; Actin Assembly; Actin, etc.; Cytoskeleton; Cytoskeleton/ECM; G Protein Signaling; Microfilaments; Ras Family; Signal Transduction; Signaling Pathway; Small G Proteins

References	1. Bundschu, K., Knobloch, K.-P., Ullrich, M., Schinke, T., Amling, M., Engelhardt, C. M., Renne, T., Walter, U., Schuh, K. Gene disruption of Spred-2 causes dwarfism. J. Biol. Chem. 280: 28572-28580, 2005. 2. Kato, R., Nonami, A., Taketomi, T., Wakioka, T., Kuroiwa, A., Matsuda, Y., Yoshimura, A. Molecular cloning of mammalian Spred-3 which suppresses tyrosine kinase-mediated Erk activation. Biochem. Biophys. Res. Commun. 302: 767-772, 2003. 3. Motta, M., Fasano, G., Gredy, S., Brinkmann, J., Bonnard, A. A., Simsek-Kiper, P. O., Gulec, E. Y., Essaddam, L., Utine, G. E., Guarnetti Prandi, I., Venditti, M., Pantaleoni, F., and 21 others. SPRED2 loss-of-function causes a recessive Noonan syndrome-like phenotype. Am. J. Hum. Genet. 108: 2112-2129, 2021.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	189571669
NCBI GeneID	200734
NCBI Accession #	NP_861449
NCBI GenBank Nucleotide #	NM_181784.2
UniProt Accession #	Q7Z698; Q2NKG6; A1L3V4; B7Z5K7; D6W5F7; E9PEP0
Molecular Weight	47,033 Da
NCBI Official Full Name	sprouty-related, EVH1 domain-containing protein 2 isoform a
NCBI Official Synonym Full Names	sprouty-related, EVH1 domain containing 2
NCBI Official Symbol	SPRED2
NCBI Official Synonym Symbols	Spred-2
NCBI Protein Information	sprouty-related, EVH1 domain-containing protein 2; sprouty protein with EVH-1 domain 2, related sequence
UniProt Protein Name	Sprouty-related, EVH1 domain-containing protein 2
UniProt Gene Name	SPRED2
UniProt Synonym Gene Names	Spred-2
UniProt Entry Name	SPRE2_HUMAN

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