



# SIRP- $\beta$ 2 (C-17): sc-85911

## BACKGROUND

SIRPs (signal-regulatory proteins) are a family of transmembrane glycoproteins that were identified by their association with the Src homology 2 domain-containing protein-tyrosine phosphatase SHP-2 in response to Insulin. The SIRP family negatively regulates the PI 3-kinase pathway, which may diminish EGFR-mediated motility and survival phenotypes that contribute to transformation of certain cell types. SIRP- $\alpha$ 1 is a transmembrane protein which acts as a substrate for activated receptor tyrosine kinases and, in its tyrosine phosphorylated form, binds to SH-PTP2 through SH2 interactions and acts as an SH-PTP2 substrate. SIRP- $\alpha$ 1 has been shown to have negative regulatory effects on cellular responses induced by growth factors, oncogenes and Insulin. SIRP- $\beta$ 1 shares extensive sequence homology with SIRP- $\alpha$ 1 in its extracellular portion but lacks the cytoplasmic portion. SIRP- $\beta$ 2 is a 342 amino acid multi-pass membrane protein that contains two Ig-like V-type (immunoglobulin-like) domains and exists as multiple alternatively spliced isoforms.

## REFERENCES

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7. Brooke, G., Holbrook, J.D., Brown, M.H. and Barclay, A.N. 2004. Human lymphocytes interact directly with CD47 through a novel member of the signal regulatory protein (SIRP) family. *J. Immunol.* 173: 2562-2570.

## CHROMOSOMAL LOCATION

Genetic locus: SIRPB2 (human) mapping to 20p13.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## SOURCE

SIRP- $\beta$ 2 (C-17) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of SIRP- $\beta$ 2 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85911 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SIRP- $\beta$ 2 (C-17) is recommended for detection of SIRP- $\beta$ 2 isoforms 1, 4 and 5 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SIRP- $\beta$ 2 siRNA (h): sc-106551, SIRP- $\beta$ 2 shRNA Plasmid (h): sc-106551-SH and SIRP- $\beta$ 2 shRNA (h) Lentiviral Particles: sc-106551-V.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.