

SIRP- β 1 (C-19): sc-6923

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-K pathway, which may diminish EGFR-mediated motility and survival phenotypes that contribute to transformation of certain cell types. SIRP- α 1 is a transmembrane protein which contains an extracellular portion with three immunoglobulin-like structures and a cytoplasmic region with four potential tyrosine phosphorylation sites. SIRP- α 1 is a substrate for activated receptor tyrosine kinases. In its tyrosine phosphorylated form, SIRP- α 1 binds to SH-PTP2 through SH2 interactions and acts as an SH-PTP2 substrate. SIRP- α 1 has been shown to have negative regulatory effects on cellular responses induced by growth factors, oncogenes and insulin. SIRP- β 1 shares extensive sequence homology with SIRP- α 1 in its extracellular portion but lacks the cytoplasmic portion. SIRP- γ , originally designated SIRP- β 2 (SIRP-B2, CD172 γ) has unique characteristics from both the α and β versions. SIRP- γ is expressed on the majority of T cells and a proportion of B cells. CD47 associates with SIRP- γ , and this interaction signals unidirectionally only.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SIRPB1 (human) mapping to 20p13.

SOURCE

SIRP- β 1 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of SIRP- β 1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6923 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SIRP- β 1 (C-19) is recommended for detection of SIRP- β 1 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).

SIRP- β 1 (C-19) is also recommended for detection of SIRP- β 1 in additional species, including bovine.

Suitable for use as control antibody for SIRP- β 1 siRNA (h): sc-40985.; and as shRNA Plasmid control antibody for SIRP- β 1 shRNA Plasmid (h): sc-40985-SH and SIRP- β 1 shRNA (h) Lentiviral Particles: sc-40985-V.

Molecular Weight of SIRP- 1: 120 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **SIRP- α / β 1 (E-7): sc-55491** or **SIRP- α / β 1 (C-8): sc-373896**, our highly recommended monoclonal alternatives to SIRP- β 1 (C-19).