SANTA CRUZ BIOTECHNOLOGY, INC.

SIT (N-20): sc-15603

BACKGROUND

T lymphocytes express several low molecular mass transmembrane adaptor proteins that recruit SH2 domain-containing intracellular molecules to the cell membrane via tyrosine-based signaling pathways. One such protein, SIT (SHP2 interacting transmembrane adaptor protein), is a disulfide-linked homodimeric glycoprotein that is expressed in lymphocytes. SIT is reduced to half its molecular mass via endoglycosidase treatment. It contains five potential tyrosine phosphorylation sites, suggesting a role in TCR-mediated recruitment of SH2 domain-containing intracellular signaling molecules to the plasma membrane. SIT interacts with SHP2 and also with the adaptor protein GRB2. In addition, it is a substrate for the Src protein kinases Fyn, Lck and ZAP-70.

CHROMOSOMAL LOCATION

Genetic locus: SIT1 (human) mapping to 9p13.3; Sit1 (mouse) mapping to 4 B1.

SOURCE

SIT (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SIT of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-15603 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

SIT (N-20) is recommended for detection of SIT of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

SIT (N-20) is also recommended for detection of SIT in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SIT siRNA (h): sc-45334, SIT siRNA (m): sc-45335, SIT shRNA Plasmid (h): sc-45334-SH, SIT shRNA Plasmid (m): sc-45335-SH, SIT shRNA (h) Lentiviral Particles: sc-45334-V and SIT shRNA (m) Lentiviral Particles: sc-45335-V.

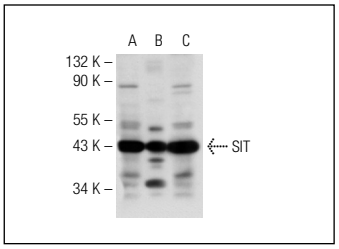
Molecular Weight of SIT: 40 kDa.

Positive Controls: HuT 78 whole cell lysate: sc-2208, WEHI-231 whole cell lysate: sc-2213 or CTLL-2 cell lysate: sc-2242.

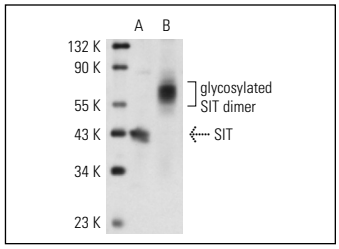
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



SIT (N-20): sc-15603. Western blot analysis of SIT expression in HuT 78 (**A**), WEHI-231 (**B**) and H9 (**C**) whole cell lysates.



SIT (N-20): sc-15603. Western blot analysis of SIT expression in HuT 78 (**A**) and Jurkat (**B**) whole cell lysates.

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.