

CYTIP (S-20): sc-67540

BACKGROUND

CYTIP, also known as PSCDBP (pleckstrin homology, Sec7 and coiled-coil domains, binding protein), CASP or CYBR, is a cytoplasmic protein that is involved in lymphocytic cell adhesion. Expressed primarily in hematopoietic cells, CYTIP regulates the activity of cytohesin-1 (an integrin-activating protein involved in cell adhesion) by mediating its recruitment to the leukocyte membrane. Through its ability to bind cytohesin-1, CYTIP is able to sequester it to the cytoplasm, thereby preventing cytohesin-1 translocation to lymphocytes and interrupting the flow of information in the cell adhesion pathway. CYTIP can be recruited from the cytoplasm to the membrane by leukocyte integrins which interact with CYTIP through its PDZ domain. After membrane translocation, CYTIP can be re-located to the cytoplasm via exposure to a phorbol ester. Additionally, CYTIP associates with SNX27 (sorting nexin 27) and helps to coordinate trafficking and signaling complexes. Up-regulation of CYTIP is observed in maturing dendritic cells, suggesting a possible role in developmentally-controlled cell adhesion.

REFERENCES

- Kim, H.S. 1999. Assignment of the human B3-1 gene (PSCDBP) to chromosome 2 band q11.2 by radiation hybrid mapping. *Cytogenet. Cell Genet.* 84: 95.
- Tang, P., et al. 2002. CYBR, a cytokine-inducible protein that binds cytohesin-1 and regulates its activity. *Proc. Natl. Acad. Sci. USA* 99: 2625-2629.
- Boehm, T., et al. 2003. Attenuation of cell adhesion in lymphocytes is regulated by CYTIP, a protein which mediates signal complex sequestration. *EMBO J.* 22: 1014-1024.
- Hofer, S., et al. 2006. Dendritic cells regulate T cell deattachment through the integrin-interacting protein CYTIP. *Blood* 107: 1003-1009.
- Chen, Q., et al. 2006. Cytohesin binder and regulator augments T cell receptor-induced nuclear factor of activated T cells. AP-1 activation through regulation of the JNK pathway. *J. Biol. Chem.* 281: 19985-19994.

CHROMOSOMAL LOCATION

Genetic locus: CYTIP (human) mapping to 2q24.1; Cytip (mouse) mapping to 2 C1.1.

SOURCE

CYTIP (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CYTIP 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-67540 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

CYTIP (S-20) is recommended for detection of CYTIP 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).

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

Suitable for use as control antibody for CYTIP siRNA (h): sc-62186, CYTIP siRNA (m): sc-62187, CYTIP shRNA Plasmid (h): sc-62186-SH, CYTIP shRNA Plasmid (m): sc-62187-SH, CYTIP shRNA (h) Lentiviral Particles: sc-62186-V and CYTIP shRNA (m) Lentiviral Particles: sc-62187-V.

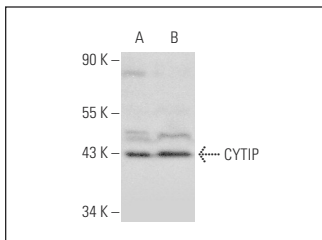
Molecular Weight of CYTIP: 42 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, MOLT-4 cell lysate: sc-2233 or Ramos cell lysate: sc-2216.

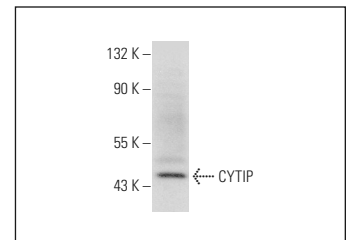
RECOMMENDED SECONDARY REAGENTS

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



CYTIP (S-20): sc-67540. Western blot analysis of CYTIP expression in Ramos (A) and MOLT-4 (B) whole cell lysates.



CYTIP (S-20): sc-67540. Western blot analysis of CYTIP expression in HL-60 whole cell lysate.

RESEARCH USE

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

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Try **CYTIP (B-3): sc-514829** or **CYTIP (H-6): sc-390857**, our highly recommended monoclonal alternatives to CYTIP (S-20).