SANTA CRUZ BIOTECHNOLOGY, INC.

Clnk (K-20): sc-20483

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Adaptor proteins mediate the recruitment of positive or negative regulators into signaling networks, modulate effector function by allosteric regulation of enzymatic activity and target other proteins for degradation in response to receptor ligation. Adaptor proteins can associate with numerous molecules and are required for coupling receptor ligation with more distal signaling events in immature thymocytes, mature T cells, platelets and mast cells. The SLP-76 family of adaptor proteins are expressed exclusively in cytokine-stimulated hematopoietic cells. The SLP-76 family member Clnk, also designated MIST (mast cell immunoreceptor signal transducer) is structurally related to SLP-76 and BLNK/BASH/SLP-65 hematopoietic cell-specific adaptor proteins. The human Clnk gene maps to chromosome 4 and encodes a 376 amino acid protein. In activated T cells and myeloid cells, the serine/threonine-specific protein kinase HPK-1 can be recruited to macromolecular complexes through Clnk and cause immunoreceptor-mediated activation of the interleukin 2 (IL-2) promoter.

REFERENCES

1. Goitsuka, R., et al. 2000. A BASH/SLP-76-related adaptor protein MIST/Clnk involved in IgE receptor-mediated mast cell degranulation. Int. Immunol. 12: 573-580.
2. Goitsuka, R., et al. 2001. MIST functions through distinct domains in immunoreceptor signaling in the presence and absence of LAT. J. Biol. Chem. 276: 36043-36050.
3. Koretzky, G.A., et al. 2001. Positive and negative regulation of T cell activation by adaptor proteins. Nature Rev. Immunol. 1: 95-107.
4. Yu, J., et al. 2001. Synergistic regulation of immunoreceptor signaling by SLP-76-related adaptor Clnk and serine/threonine protein kinase HPK-1. Mol. Cell. Biol. 21: 6102-6112.
5. Geng, L., et al. 2002. Signalling scaffolds and adaptors in T cell immunity. Br. J. Haematol. 116: 19-27.
6. LocusLink Report (LocusID: 2243). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: MIST (human) mapping to 4p16.1; Clnk (mouse) mapping to 5 B3.

SOURCE

Clnk (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Clnk 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-20483 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Clnk (K-20) is recommended for detection of Clnk of mouse, rat and 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 Clnk siRNA (h): sc-42975 and Clnk siRNA (m): sc-42976.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

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.

PROTOCOLS

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