SANTA CRUZ BIOTECHNOLOGY, INC.

B7RP-1 (K-16): sc-14597

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The Power to Question

BACKGROUND

T-cell co-stimulatory molecule, inducible co-stimulator (ICOS)/B7-related protein-1 (B7RP-1, B7-H2, GL50, ICOS-L) is a ligand for the ICOS receptor that initiates T and B cell proliferation and cytokine secretion. B7RP-1 interactions play an essential role in T cell-dependent B cell activation in peripheral lymphoid organs such as spleen and lymph nodes. B7RP-1 protein is present in myeloid leukocytes, and by northern blot there are 2.4, 3.0, and 7.0 kb transcripts in brain, heart, kidney, and liver, with lower expression in colon and thymus, and a 1.1 kb transcript in leukocytes. Tumor necrosis factor α (TNFα), granulocyte-macrophage colony-stimulating factor (GM-CSF) and interleukin-4 (IL-4) enhance B7RP-1 expression. LPS-induced up-regulation of B7RP-1 is dependent on the MyD88-dependent signaling pathway.

REFERENCES

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3. Yoshinaga, S.K., et al. 2000. Characterization of a new human B7-related protein: B7RP-1 is the ligand to the co-stimulatory protein ICOS. Int. Immunol. 12: 1439-47.
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5. Flesch, I.E. 2002. Inducible costimulator-ligand (ICOS-L). J. Biol. Regul. Homeost. Agents 16: 217-219.
6. Liyama, R., et al. 2003. The role of inducible co-stimulator (ICOS)/B7-related protein-1 (B7RP-1) interaction in the functional development of Peyer's patches. Immunol. Lett. 88: 63-70.
7. Wahl, P., et al. 2003. Interaction of B7RP-1 with ICOS negatively regulates antigen presentation by B cells. Inflammation 27: 191-200.
8. Gajewska, B.U., et al. 2005. B7RP-1 is not required for the generation of Th2 responses in a model of allergic airway inflammation but is essential for the induction of inhalation tolerance. J. Immunol. 174: 3000-3005.
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CHROMOSOMAL LOCATION

Genetic locus: ICOSLG (human) mapping to 21q22.3; Icoslg (mouse) mapping to 10 C1.

SOURCE

B7RP-1 (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of B7RP-1 of human origin.

RESEARCH USE

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

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-14597 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

B7RP-1 (K-16) is recommended for detection of B7RP-1 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).

B7RP-1 (K-16) is also recommended for detection of B7RP-1 in additional species, including equine.

Suitable for use as control antibody for B7RP-1 siRNA (h): sc-42768, B7RP-1 siRNA (m): sc-42769, B7RP-1 shRNA Plasmid (h): sc-42768-SH, B7RP-1 shRNA Plasmid (m): sc-42769-SH, B7RP-1 shRNA (h) Lentiviral Particles: sc-42768-V and B7RP-1 shRNA (m) Lentiviral Particles: sc-42769-V.

Molecular Weight of B7RP-1: 36 kDa.

Positive Controls: Daudi cell lysate: sc-2415 or mouse spleen extract : sc-2391.

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.