

# B7RP-1 (h): 293T Lysate: sc-116982

## BACKGROUND

T cell costimulatory molecule, inducible costimulator (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  $\alpha$  (TNF  $\alpha$ ), 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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2. Yoshinaga, S.K., et al. 2000. Characterization of a new human B7 related protein: B7RP-1 is the ligand to the costimulatory protein ICOS. *Int. Immunol.* 12: 1439-1447.
3. Ling, V., et al. 2000. Cutting edge: identification of GL50, a novel B7 like protein that functionally binds to ICOS receptor. *J. Immunol.* 164: 1653-1657.
4. Richter, G., et al. 2001. Tumor receptor ligand on CD34<sup>+</sup> progenitor cells during differentiation into antigen presenting cells. *J. Biol. Chem.* 276: 45686-45693.
5. Flesch, I.E. 2002. Inducible costimulator-ligand (ICOS-L). *J. Biol. Regul. Homeost. Agents* 16: 217-219.
6. Khayyamian, S., et al. 2002. ICOS-ligand, expressed on human endothelial cells, costimulates cytokine secretion by memory CD4<sup>+</sup> T cells. *Proc. Natl. Acad. Sci. USA* 99: 6198-6203.
7. Iiyama, R., et al. 2003. The role of inducible costimulator (ICOS)/B7-related protein-1 (B7RP-1) interaction in the functional development of Peyer's patches. *Immunol. Lett.* 88: 63-70.
8. Wahl, P., et al. 2003. Interaction of B7RP-1 with ICOS negatively regulates antigen presentation by B cells. *Inflammation* 27: 191-200.
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10. Zhou, Z., et al. 2005. Antagonism between MyD88 and TRIF dependent signals in B7RP-1 upregulation. *Eur. J. Immunol.* 35: 1918-1927.

## CHROMOSOMAL LOCATION

Genetic locus: ICOSLG (human) mapping to 21q22.3..

## PRODUCT

B7RP-1 (h): 293T Lysate represents a lysate of human B7RP-1 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

B7RP-1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive B7RP-1 antibodies. Recommended use: 10-20  $\mu$ l per lane.

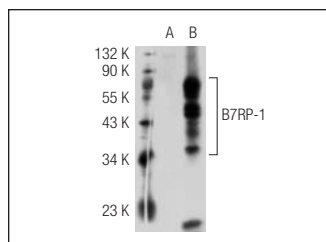
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Either B7RP-1 (2D3): sc-53652 or B7RP-1 (3F206): sc-70398 is recommended as a positive control antibody for Western Blot analysis of enhanced human B7RP-1 expression in B7RP-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

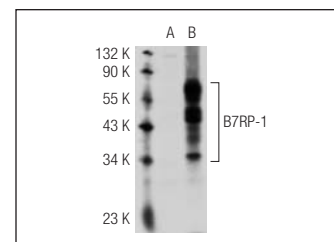
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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.

## DATA



B7RP-1 (2D3): sc-53652. Western blot analysis of B7RP-1 expression in non-transfected: sc-117752 (A) and human B7RP-1 transfected: sc-116982 (B) 293T whole cell lysates.



B7RP-1 (3F206): sc-70398. Western blot analysis of B7RP-1 expression in non-transfected: sc-117752 (A) and human B7RP-1 transfected: sc-116982 (B) 293T whole cell lysates.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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](http://www.scbt.com) or our catalog for detailed protocols and support products.