DCIR (C-12): sc-46902



The Power to Question

BACKGROUND

DCIR (dendritic cell immunoreceptor) is a type II membrane glycoprotein with a single carbohydrate recognition domain (CRD), closest in homology to those of the macrophage lectin and hepatic asialoglycoprotein receptors. The intra-cellular domain of DCIR contains a consensus immunoreceptor tyrosine-based inhibitory motif. DCIR is expressed on dendritic cells, monocytes, macrophages, B lymphocytes and granulocytes, but is not detected on NK and T cells. DCIR expression in dendritic cells is decreased by signals inducing its maturation, such as LPS, TNF α or CD40. DCIR contains one copy of a cytoplasmic motif that is referred to as the immunoreceptor tyrosine-based inhibitor motif (ITIM). This motif is involved in modulation of cellular responses such as protein tyrosine phosphorylation and B cell receptor-mediated calcium mobilization. The phosphorylated ITIM motif can bind the SH2 domain of several SH2-containing phosphatases.

REFERENCES

- Huang, X., Yuan, Z., Chen, G., Zhang, M., Zhang, W., Yu, Y. and Cao, X. 2001. Cloning and characterization of a novel ITIM containing lectin-like immunoreceptor LLIR and its two transmembrane region deletion variants. Biochem. Biophys. Res. Commun. 281: 131-140.
- Richard, M., Veilleux, P., Rouleau, M., Paquin, R. and Beaulieu, A.D. 2002. The expression pattern of the ITIM-bearing lectin CLECSF6 in neutrophils suggests a key role in the control of inflammation. J. Leukoc. Biol. 71: 871-880.
- Kanazawa, N., Tashiro, K., Inaba, K. and Miyachi, Y. 2003. Dendritic cell immunoactivating receptor, a novel C-type lectin immunoreceptor, acts as an activating receptor through association with Fc receptor γ chain. J. Biol. Chem. 278: 32645-32652.
- Richard, M., Thibault, N., Veilleux, P., Breton, R. and Beaulieu, A.D. 2003. The ITIM-bearing CLECSF6 (DCIR) is downmodulated in neutrophils by neutrophil activating agents. Biochem. Biophys. Res. Commun. 310: 767-773.
- Velten, F.W., Duperrier, K., Bohlender, J., Metharom, P. and Goerdt, S. 2004.
 A gene signature of inhibitory MHC receptors identifies a BDCA-3+ subset of IL-10-induced dendritic cells with reduced allostimulatory capacity in vitro. Eur. J. Immunol. 34: 2800-2811.
- Flornes, L.M., Bryceson, Y.T., Spurkland, A., Lorentzen, J.C., Dissen, E. and Fossum, S. 2004. Identification of lectin-like receptors expressed by antigen presenting cells and neutrophils and their mapping to a novel gene complex. Immunogenetics 56: 506-517.
- Kanazawa, N., Tashiro, K. and Miyachi, Y. 2004. Signaling and immune regulatory role of the dendritic cell immunoreceptor (DCIR) family lectins: DCIR, DCAR, Dectin-2 and BDCA-2. Immunobiology 209: 179-190.

CHROMOSOMAL LOCATION

Genetic locus: CLECSF6 (human) mapping to 12p13.31.

SOURCE

DCIR (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of DCIR 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-46902 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DCIR (C-12) is recommended for detection of DCIR isoforms 1, 2, 3 and 4 of 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 DCIR siRNA (h): sc-60507, DCIR shRNA Plasmid (h): sc-60507-SH and DCIR shRNA (h) Lentiviral Particles: sc-60507-V.

Molecular Weight of DCIR: 35 kDa.

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) 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.

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.



Try **DCIR (G-9):** sc-374583, our highly recommended monoclonal alternative to DCIR (C-12).

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**