

CD84 (M-130): sc-32951

BACKGROUND

The human CD84 gene maps to chromosome 1q24 and is composed of at least eight exons, with an exon coding for the 5' UTR and the leader peptide, two exons coding for each of the two extracellular Ig-like domains, an exon encoding the hydrophobic transmembrane region and four exons coding for the cytoplasmic domains. The extracellular Ig-like domains share structural and sequence homology with a group of members of the Ig superfamily that include CD2, CD48, CD58 and Ly9. Five CD84 isoforms have been characterized, including CD84a, CD84b, CD84c, CD84d and CD84e, which are preferentially expressed on B lymphocytes, monocytes and platelets, where they act as their own ligand and are therefore costimulatory molecules. The CD84 isoforms are generated by alternative exon enhancement, reading frame shift and use of cryptic splice sites. The differential expression of potential sites of phosphorylation on the different isoforms may be a way to regulate CD84 activity in signal transduction.

REFERENCES

- de la Fuente, M.A., Pizcueta, P., Nadal, M., Bosch, J. and Engel, P. 1997. CD84 leukocyte antigen is a new member of the Ig superfamily. *Blood* 90: 2398-2405.
- Palou, E., Piroto, F., Sole, J., Freed, J.H., Peral, B., Vilardell, C., Vilella, R., Vives, J. and Gaya, A. 2000. Genomic characterization of CD84 reveals the existence of five isoforms differing in their cytoplasmic domains. *Tissue Antigens* 55: 118-127.
- Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 604513. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Martin, M., Romero, X., de la Fuente, M.A., Tovar, V., Zapater, N., Esplugues, E., Pizcueta, P., Bosch, J. and Engel, P. 2001. CD84 functions as a homo-philic adhesion molecule and enhances IFN- γ secretion: adhesion is mediated by Ig-like domain 1. *J. Immunol.* 167: 3668-3676.
- LocusLink Report (LocusID: 8832). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: Cd84 (mouse) mapping to 1 H3.

SOURCE

CD84 (M-130) is a rabbit polyclonal antibody raised against amino acids 200-329 mapping at the C-terminus of CD84 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

CD84 (M-130) is recommended for detection of CD84 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for CD84 siRNA (m): sc-42811, CD84 shRNA Plasmid (m): sc-42811-SH and CD84 shRNA (m) Lentiviral Particles: sc-42811-V.

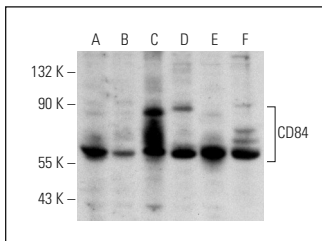
Molecular Weight of CD84: 64-82 kDa.

Positive Controls: J774.A1 cell lysate: sc-3802, IB4 whole cell lysate: sc-364780 or BW5147 cell lysate: sc-3800.

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CD84 (M-130): sc-32951. Western blot analysis of CD84 expression in J774.A1 (A), RAW 264.7 (B), mouse PBL (C), IB4 (D), BW5147 (E) and FOX-NY (F) whole cell lysates.

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.