SANTA CRUZ BIOTECHNOLOGY, INC.

CD84 (152-1D5): sc-23899

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The human CD84 gene maps to chromosome 1q23.3 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.

CHROMOSOMAL LOCATION

Genetic locus: CD84 (human) mapping to 1q23.3; Cd84 (mouse) mapping to 1 H3.

SOURCE

CD84 (152-1D5) is a mouse monoclonal antibody raised against spleen cells of a patient with hairy cell leukemia.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD84 (152-1D5) is available conjugated to agarose (sc-23899 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-23899 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-23899 PE), fluorescein (sc-23899 FITC), Alexa Fluor® 488 (sc-23899 AF488), Alexa Fluor® 546 (sc-23899 AF546), Alexa Fluor® 594 (sc-23899 AF594) or Alexa Fluor® 647 (sc-23899 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-23899 AF680) or Alexa Fluor® 790 (sc-23899 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

CD84 (152-1D5) is recommended for detection of CD84 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1,000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for CD84 siRNA (h): sc-42810, CD84 siRNA (m): sc-42811, CD84 shRNA Plasmid (h): sc-42810-SH, CD84 shRNA Plasmid (m): sc-42811-SH, CD84 shRNA (h) Lentiviral Particles: sc-42810-V and CD84 shRNA (m) Lentiviral Particles: sc-42811-V.

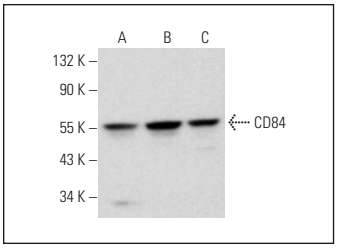
Molecular Weight of CD84: 64-82 kDa.

Positive Controls: C6 whole cell lysate: sc-364373, WEHI-231 whole cell lysate: sc-2213 or Neuro-2A whole cell lysate: sc-364185.

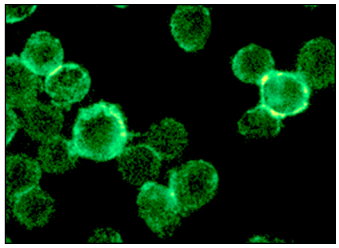
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CD84 (152-1D5): sc-23899. Western blot analysis of CD84 expression in C6 (**A**), WEHI-231 (**B**) and Neuro-2A (**C**) whole cell lysates.



CD84 (152-1D5): sc-23899. Immunofluorescence staining of methanol-fixed NAMALWA cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Yeh, I., et al. 2012. Differential expression of PHLDA1 (TDAG51) in basal cell carcinoma and trichoepithelioma. Br. J. Dermatol. 167: 1106-1110.
2. Binsky-Ehrenreich, I., et al. 2014. CD84 is a survival receptor for CLL cells. Oncogene 33: 1006-1016.
3. Honarpisheh, H., et al. 2014. Cytokeratin 20 expression in basaloid follicular hamartoma and infundibulocystic basal cell carcinoma. J. Cutan. Pathol. 41: 916-921.
4. Wang, T.T.Y., et al. 2018. Elucidating the role of CD84 and AHR in modulation of LPS-induced cytokines production by cruciferous vegetable-derived compounds indole-3-carbinol and 3,3'-diindolylmethane. Int. J. Mol. Sci. 19 pii: E339.

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 for detailed protocols and support products.