

CD1 (C-19): sc-7091

BACKGROUND

The CD1 genes form a multigene family with five forms in human, two in mouse and eight in rabbit. CD1 has structural similarity to the MHC class I antigen, and it thus has been suggested to play a role in antigen presentation. CD1 antigens are expressed on cortical thymocytes and some dendritic cells. CD1 is a 49 kDa polypeptide that is associated with β 2 microglobulin.

REFERENCES

1. Aruffo, A. and Seed, B. 1989. Expression of cDNA clones encoding the thymocyte antigens CD1A, B, C demonstrates a hierarchy of exclusion in fibroblasts. *J. Immunol.* 143: 1723-1730.
2. Longley, J., Kraus, J., Alonso, M. and Edelson, R. 1989. Molecular cloning of CD1A (T6), a human epidermal dendritic cell marker related to class I MHC molecules. *J. Invest. Dermatol.* 92: 628-631.
3. Sotzik, F., Boyd, A. and Shortman, K. 1993. Surface antigens of human thymocyte populations defined by CD3, CD4 and CD8 expression: CD1A is expressed by mature thymocytes but not peripheral T cells. *Immunol. Lett.* 36: 101-106.
4. Porcelli, S.A. 1995. The CD1 family: a third lineage of antigen-presenting molecules. *Adv. Immunol.* 59: 1-18.
5. Melian, A., Beckman, E.M., Porcelli, S.A. and Brenner, M.B. 1996. Antigen presentation by CD1 and MHC-encoded class I-like molecules. *Curr. Opin. Immunol.* 8: 82-88.
6. Storkus, W.J., Wei, M., Cresswell, P. and Dawson, J.R. 1996. Class I-like CD1A-C do not protect target cells from NK-mediated cytotoxicity. *Cell. Immunol.* 167: 154-156.
7. Bauer, A., Huttinger, R., Staffler, G., Hansmann, C., Schmidt, W., Majdic, O., Knapp, W. and Stockinger, H. 1997. Analysis of the requirement for β 2-microglobulin for expression and formation of human CD1 antigens. *Eur. J. Immunol.* 27: 1366-1373.

SOURCE

CD1 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CD1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-7091 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as fluorescein conjugate for immunofluorescence, sc-7091 FITC, 200 μ g/1 ml.

STORAGE

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

APPLICATIONS

CD1 (C-19) is recommended for detection of all CD1 isoforms of human 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).

CD1 (C-19) is also recommended for detection of all CD1 isoforms in additional species, including canine, bovine and porcine.

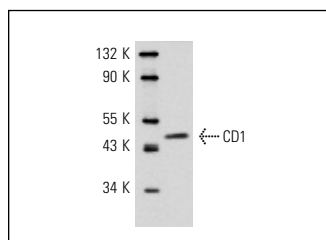
Molecular Weight of CD1: 44 kDa.

Positive Controls: CCD-1064Sk cell lysate: sc-2263.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



CD1 (C-19): sc-7091. Western blot analysis of CD1 expression in CCD-1064Sk whole cell lysate.

SELECT PRODUCT CITATIONS

1. Benencia, F., Courrèges, M.C., Conejo-García, J.R., Mohamed-Hadley, A., Zhang, L., Buckanovich, R.J., Carroll, R., Fraser, N. and Coukos, G. 2005. HSV oncolytic therapy upregulates interferon-inducible chemokines and recruits immune effector cells in ovarian cancer. *Mol. Ther.* 12: 789-802.

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.