

CD1D (H-70): sc-21010

BACKGROUND

The CD1 multigene family encodes five forms of the CD1 T cell surface glycoprotein in human, designated CD1A, 1B, 1C, 1D and 1E. CD1, a type 1 membrane protein, has structural similarity to the MHC class I antigen and has been shown to present lipid antigens for recognition by T lymphocytes. CD1 antigens are associated with β -2-Microglobulin and expressed on cortical thymocytes, Langerhans cells, a B cell subset and some dendritic cells. Adaptor protein complexes and CD1-associated chaperones control CD1 trafficking and the development and activation of CD1-restricted T cells. CD1D is present on human intestinal epithelial cells (IEC) and exists as a β -2-Microglobulin-independent nonglycosylated form or a β -2-Microglobulin-dependent glycosylated form. The human CD1D gene maps to chromosome 1q23.1 and encodes a 335 amino acid protein that influences normal T cell maturation.

REFERENCES

1. Balk, S.P., et al. 1989. Isolation and characterization of a cDNA and gene coding for a fourth CD1 molecule. *Proc. Natl. Acad. Sci. USA* 86: 252-256.
2. Calabi, F., et al. 1989. Two classes of CD1 genes. *Eur. J. Immunol.* 19: 285-292.

CHROMOSOMAL LOCATION

Genetic locus: CD1D (human) mapping to 1q23.1; Cd1d2 (mouse) mapping to 3 F1.

SOURCE

CD1D (H-70) is a rabbit polyclonal antibody raised against amino acids 71-140 mapping near the N-terminus of CD1D 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.

APPLICATIONS

CD1D (H-70) is recommended for detection of CD1D of human and, to a lesser extent, 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 CD1D siRNA (h): sc-42747, CD1 siRNA (m): sc-42743, CD1D shRNA Plasmid (h): sc-42747-SH, CD1 shRNA Plasmid (m): sc-42743-SH, CD1D shRNA (h) Lentiviral Particles: sc-42747-V and CD1 shRNA (m) Lentiviral Particles: sc-42743-V.

Molecular Weight of CD1D: 37 kDa.

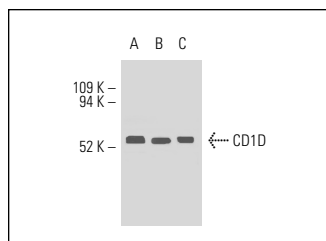
Molecular Weight of glycosylated CD1D: 50-55 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, CCRF-CEM cell lysate: sc-2225 or MOLT-4 cell lysate: sc-2233.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (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-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



CD1D (H-70): sc-21010. Western blot analysis of CD1D expression in CCRF-CEM (A), Jurkat (B) and MOLT-4 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Tenaud, I., et al. 2007. *In vitro* modulation of TLR2, CD1D and IL-10 by adapalene on normal human skin and acne inflammatory lesions. *Exp. Dermatol.* 16: 500-506.
2. Giles, D.K. and Wyrick, P.B. 2008. Trafficking of chlamydial antigens to the endoplasmic reticulum of infected epithelial cells. *Microbes Infect.* 10: 1494-1503.

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 **CD1D (C3D5): sc-19632** or **CD1D (C-9): sc-271950**, our highly recommended monoclonal alternatives to CD1D (H-70). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **CD1D (C3D5): sc-19632**.