

CD1B (VPM5): sc-101618

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. Specifically, CD1A is a marker for Langerhans cell histiocytosis (LCH) and is found on interdigitating cells. Adaptor-protein complexes and CD1-associated chaperones control CD1 trafficking, and the development and activation of CD1-restricted T cells. Constitutive endocytosis of CD1B molecules and the differential sorting of MHC class II from lysosomes separate peptide- and lipid antigen-presenting molecules during dendritic cell maturation. CD1B is also expressed in interdigitating cells. The human CD1 genes are all closely linked in a cluster mapping at chromosome 1q 22-23.

REFERENCES

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SOURCE

CD1B (VPM5) is a mouse monoclonal antibody raised against afferent lymph dendritic cells of ovine origin.

PRODUCT

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

CD1B (VPM5) is available conjugated to either phycoerythrin (sc-101618 PE) or fluorescein (sc-101618 FITC), 200 μ g/ml, for IF, IHC(P) and FCM.

APPLICATIONS

CD1B (VPM5) is recommended for detection of CD1B of ovine, caprine and bovine 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 flow cytometry (1 μ g per 1×10^6 cells).

Molecular Weight of CD1B: 45 kDa.

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.