Anti-CD1a Antibody

ER1902-73



Product Type: Rabbit polyclonal IgG, primary antibodies

Species reactivity: Human

Applications: WB, FC

Molecular Wt: Predicted band size 37 kDa.

Description: 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 1q23.1.

Immunogen: Recombinant protein within Human CD1a aa 1-152 / 327.

Positive control: Human skin tissue lysates, 293.

Subcellular location: Cell membrane. Endosome membrane.

Database links: SwissProt: P06126 Human

Recommended Dilutions:

WB 1:500-1:1,000 **FC** 1:50-1:100

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4° C. Store at $+4^{\circ}$ C short term (1-2 weeks). It is recommended to aliquot into

single-use upon delivery. Store at -20 ℃ long term.

Purity: Protein A affinity purified.

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Images

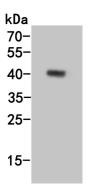


Fig1: Western blot analysis of CD1a on human skin tissue lysate lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ER1902-73, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:5,000 dilution was used for 1 hour at room temperature.

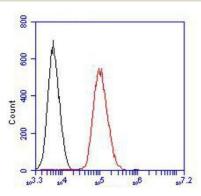


Fig2: Flow cytometric analysis of CD1a was done on 293 cells. The cells were fixed, permeabilized and stained with the primary antibody (ER1902-73, 1/100) (red). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor 488-conjugated goat anti-rabbit IgG Secondary antibody at 1/500 dilution for 30 minutes.Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

- 1. Nguyen N et al. Tumor infiltrating lymphocytes and survival in patients with head and neck squamous cell carcinoma. Head Neck 38:1074-84 (2016).
- 2. Tam J et al. Reconstitution of full-thickness skin by microcolumn grafting. J Tissue Eng Regen Med doi: 10.1002/term.2174 (2016).