

## ARG23172 anti-CD1d antibody [WTH1] (Biotin)

Package: 50 µg

Store at: 4°C

### Summary

|                     |  |
|---------------------|--|
| Product Description | Biotin-conjugated Mouse Monoclonal antibody [WTH1] recognizes CD1d<br>Mouse anti Rat CD1d antibody, clone WTH1 recognizes rat CD1d, a glycoprotein expressed on cortical thymocytes, certain T-cell leukaemias and various other antigen presenting cells. CD1d binds self and non-self glycolipids and presents them to T-cell receptors on natural killer cells. When activated, natural killer cells produce Th1 and Th2 cytokines. Clone WTH1 recognizes a different, non-overlapping epitope to clone WTH2 and binds with high affinity to the mature CD1d heavy chain independently of beta-2-microglobulin. Mouse anti Rat CD1d antibody, clone WTH1 efficiently blocks rat and mouse invariant natural killer T cell (iNKT cell) response to a-GalCer (an antigen for iNKT cells) and has a slightly higher affinity to native CD1d than clone WTH2. Clone WTH1 cross reacts weakly with mouse tissue in IHC and western blotting, but reacts strongly with both rat and mouse antigens in flow cytometry and immunoprecipitation. |
| Tested Reactivity   | Ms, Rat  |
| Tested Application  | ELISA, FACS, FuncSt, IHC-Fr, IP, WB  |
| Host                | Mouse  |
| Clonality           | Monoclonal   |
| Clone               | WTH1   |
| Isotype             | IgG2a  |
| Target Name         | CD1d   |
| Species             | Rat  |
| Immunogen           | Rat CD1d-transduced M12.4.1.C3 cells.  |
| Conjugation         | Biotin   |
| Alternate Names     | CD antigen CD1d; CD1A; R3G1; Antigen-presenting glycoprotein CD1d; R3  |

### Application Instructions

| Application table | Application | Dilution        |
|-------------------|-------------|-----------------|
|                   | ELISA       | Assay-dependent |
|                   | FACS        | 1:2000          |
|                   | FuncSt      | Assay-dependent |
|                   | IHC-Fr      | Assay-dependent |
|                   | IP          | Assay-dependent |
|                   | WB          | Assay-dependent |

|                  |  |
|------------------|--|
| Application Note | FuncSt: This antibody contains sodium azide, removal by dialysis is recommended prior to use in functional assays.<br>WB: Clone WTH1 recognizes CD1d under non-reducing conditions.<br>FACS: Use 10 µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100 µl.<br>* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. |
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## Properties

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|                     |  |
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| Form                | Liquid   |
| Purification        | Purification with Protein A.   |
| Buffer              | PBS and 0.02% Sodium azide.  |
| Preservative        | 0.02% Sodium azide   |
| Concentration       | 0.5 mg/ml  |
| Storage instruction | Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |
| Note                | For laboratory research only, not for drug, diagnostic or other use.   |

## Bioinformation

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|----------------|--|
| Gene Symbol    | Cd1d1  |
| Gene Full Name | CD1d1 antigen  |
| Background     | This gene encodes a divergent member of the CD1 family of transmembrane glycoproteins, which are structurally related to the major histocompatibility complex (MHC) proteins and form heterodimers with beta-2-microglobulin. The CD1 proteins mediate the presentation of primarily lipid and glycolipid antigens of self or microbial origin to T cells. The human genome contains five CD1 family genes organized in a cluster on chromosome 1. The CD1 family members are thought to differ in their cellular localization and specificity for particular lipid ligands. The protein encoded by this gene localizes to late endosomes and lysosomes via a tyrosine-based motif in the cytoplasmic tail. [provided by RefSeq, Jul 2008] |
| Function       | Antigen-presenting protein that binds self and non-self glycolipids and presents them to T-cell receptors on natural killer T-cells. [UniProt]   |
| Calculated Mw  | 38 kDa   |