

Datasheet: MCA5799F

Description:	MOUSE ANTI RAT CD1d:FITC
Specificity:	CD1d
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	WTH1
Isotype:	IgG2a
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			1/1,000
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	
Functional Assays			▪	

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species

Rat

Species Cross Reactivity

Reacts with: Mouse

Does not react with: Cotton rat

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgM conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

Preparation	Purified IgG prepared by affinity chromatography on Protein A
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	<0.1% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	IgG concentration 0.5mg/ml
Immunogen	Rat CD1d-transduced M12.4.1.C3 cells.
External Database Links	<p>UniProt:</p> <p>P11609 Related reagents</p> <p>Q63493 Related reagents</p> <p>Entrez Gene:</p> <p>12479 Cd1d1 Related reagents</p> <p>25109 Cd1d1 Related reagents</p>
Synonyms	Cd1.1, Cd1d1
RRID	AB_10891431
Specificity	<p>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.</p> <p>Clone WTH1 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.</p> <p>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.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Monzon-Casanova, E. <i>et al.</i> (2010) CD1d expression in paneth cells and rat exocrine pancreas revealed by novel monoclonal antibodies which differentially affect NKT cell activation. PLoS One 5:e13089 2. Fichtner AS <i>et al.</i> (2015) Function and expression of CD1d and invariant natural killer T-cell receptor in the cotton rat (<i>Sigmodon hispidus</i>). Immunology. 146 (4): 618-29. 3. Monzon-Casanova, E. <i>et al.</i> (2013) Direct identification of rat iNKT cells reveals

remarkable similarities to human iNKT cells and a profound deficiency in LEW rats. [Eur J Immunol. 43 \(2\): 404-15.](#)

Storage This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL:FITC \(MCA1210F\)](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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