

Datasheet: MCA5799

Description:	MOUSE ANTI RAT CD1d
Specificity:	CD1d
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	WTH1
Isotype:	IgG2a
Quantity:	0.25 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	▪			1/2,000
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA	▪			
Immunoprecipitation	▪			
Western Blotting (1)	▪			
Functional Assays (2)	▪			

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.

(1) **Clone WTH1 recognizes CD1d under non-reducing conditions** ([Monzon-Casanova, E. et al.](#)).

(2) **This antibody contains sodium azide, removal by dialysis is recommended prior to use in functional assays.**

Target Species	Rat
Species Cross Reactivity	<p>Reacts with: Mouse</p> <p>Does not react with: Cotton rat</p> <p>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.</p>

Product Form	Purified IgG - liquid
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_10890864
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 α-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	<p>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</p> <p>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.</p>

3. Monzon-Casanova, E. *et al.* (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.
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Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
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Regulatory	For research purposes only
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Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR76...)	RPE
Human Anti Mouse IgG2a (HCA037...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®550 , DyLight®650 , DyLight®680 , DyLight®800 , FITC , HRP

Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA1210\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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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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