

Datasheet: MCA2289A647T

Description:	RAT ANTI MOUSE DECTIN-1:Alexa Fluor® 647
Specificity:	DECTIN-1
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	2A11
Isotype:	IgG2b
Quantity:	25 TESTS/0.25ml

Product Details

RRID AB_2081658

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	■			Neat - 1/10

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

Target Species Mouse

Product Form Purified IgG conjugated to Alexa Fluor® 647 - liquid

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®647	650	665

Preparation Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution Phosphate buffered saline

Preservative 0.09% Sodium Azide
Stabilisers 1% Bovine Serum Albumin

Approx. Protein Concentrations IgG concentration 0.05 mg/ml

Immunogen Dectin-1 transfected NIH3T3 cells and recombinant soluble Dectin-1.

External Database Links

UniProt:
[Q6QLQ4](#) [Related reagents](#)

Entrez Gene:

[56644](#) Clec7a [Related reagents](#)

Synonyms	Bgr, Clec7a, Dectin1
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Fusion Partners	Spleen cells from immunised Fischer rats were fused with cells of the rat Y3 myeloma cell line
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Specificity	<p>Rat anti Mouse Dectin-1 antibody, clone 2A11 recognizes murine beta-glucan receptor, also known as Dectin-1. Dectin-1 is predominantly expressed by cells of the monocyte/macrophage and neutrophil lineages, but also at lower levels by dendritic cells and a subpopulation of T cells.</p> <p>As a major leucocyte receptor for beta-glucan this molecule may have a key role in the immunomodulatory effects of beta-glucans and in the host response to fungal pathogens. Dectin-1 may stimulate reactive oxygen production in macrophages via the protein tyrosine kinase known as Syk.</p> <p>Rat anti Mouse Dectin-1 antibody, clone 2A11 inhibits the binding of zymosan to macrophages via the beta-glucan receptor.</p>
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Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul
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References	<ol style="list-style-type: none">1. Brown, G.D. <i>et al.</i> (2002) Dectin-1 is a major beta-glucan receptor on macrophages. J Exp Med. 196 (3): 407-12.2. Taylor, P.R. <i>et al.</i> (2002) The beta-glucan receptor, dectin-1, is predominantly expressed on the surface of cells of the monocyte/macrophage and neutrophil lineages. J Immunol. 169 (7): 3876-82.3. Reid, D.M. <i>et al.</i> (2004) Expression of the beta-glucan receptor, Dectin-1, on murine leukocytes in situ correlates with its function in pathogen recognition and reveals potential roles in leukocyte interactions. J Leukoc Biol. 76 (1): 86-94.4. Underhill, D.M. <i>et al.</i> (2005) Dectin-1 activates Syk tyrosine kinase in a dynamic subset of macrophages for reactive oxygen production. Blood. 106 (7): 2543-50.5. Lefevre, L. <i>et al.</i> (2010) PPARc Ligands Switched High Fat Diet-Induced Macrophage M2b Polarization toward M2a Thereby Improving Intestinal <i>Candida</i> Elimination PLoS One. 5(9):e12828.6. Fei, M. <i>et al.</i> (2011) TNF-alpha from inflammatory dendritic cells (DCs) regulates lung IL-17A/IL-5 levels and neutrophilia versus eosinophilia during persistent fungal infection. Proc Natl Acad Sci U S A. 108 (13): 5360-5.7. Gazi, U. <i>et al.</i> (2011) Fungal Recognition Enhances Mannose Receptor Shedding through Dectin-1 Engagement. J Biol Chem. 286: 7822-9.8. McDonald, J.U. <i>et al.</i> (2011) <i>In vivo</i> functional analysis and genetic modification of <i>in vitro</i>-derived mouse neutrophils. FASEB J. 25 (6): 1972-82.9. Dewals, B.G. <i>et al.</i> (2010) IL-4Ralpha-independent expression of mannose receptor and Ym1 by macrophages depends on their IL-10 responsiveness. PLoS Negl Trop Dis. 4: e689.10. Galès, A. <i>et al.</i> (2010) PPARgamma controls dectin-1 expression required for host antifungal defense against <i>Candida albicans</i>. PLoS Pathog. 6: e1000714.11. Coates, P.J. <i>et al.</i> (2008) Indirect macrophage responses to ionizing radiation: implications for genotype-dependent bystander signaling. Cancer Res. 68: 450-6.12. Dioszeghy, V. <i>et al.</i> (2008) 12/15-Lipoxygenase regulates the inflammatory response to bacterial products <i>in vivo</i>. J Immunol. 181: 6514-24.13. Hohl, T.M. (2008) Caspofungin modulates inflammatory responses to <i>Aspergillus fumigatus</i> through stage-specific effects on fungal beta-glucan exposure. J Infect Dis. 198: 176-85.14. Palma, A.S. <i>et al.</i> (2006) Ligands for the beta-glucan receptor, Dectin-1, assigned using "designer" microarrays of oligosaccharide probes (neoglycolipids) generated from glucan polysaccharides. J Biol Chem. 281: 5771-9.
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Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee

18 months from date of despatch.

Acknowledgements

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**Health And Safety
Information**

Material Safety Datasheet documentation #10041 available at:
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Regulatory

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'M343125:190110'

Printed on 11 Oct 2019
