

## Datasheet: MCA2289F

<b>Description:</b>	RAT ANTI MOUSE DECTIN-1:FITC
<b>Specificity:</b>	DECTIN-1
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	2A11
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	0.1 mg

## Product Details

**RRID** AB\_324908

**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](http://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 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 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 0.1 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](#)

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<b>Synonyms</b>	Bgr, Clec7a, Dectin1
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<b>Fusion Partners</b>	Spleen cells from immunised Fischer rats were fused with cells of the rat Y3 myeloma cell line
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<b>Specificity</b>	<p><b>Rat anti Mouse Dectin-1 antibody, clone 2A11</b> 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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<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul
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<b>References</b>	<ol style="list-style-type: none"><li>1. Brown, G.D. <i>et al.</i> (2002) Dectin-1 is a major beta-glucan receptor on macrophages. <a href="#">J Exp Med. 196 (3): 407-12.</a></li><li>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. <a href="#">J Immunol. 169 (7): 3876-82.</a></li><li>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. <a href="#">J Leukoc Biol. 76 (1): 86-94.</a></li><li>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. <a href="#">Blood. 106 (7): 2543-50.</a></li><li>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 <a href="#">PLoS One. 5(9):e12828.</a></li><li>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. <a href="#">Proc Natl Acad Sci U S A. 108 (13): 5360-5.</a></li><li>7. Gazi, U. <i>et al.</i> (2011) Fungal Recognition Enhances Mannose Receptor Shedding through Dectin-1 Engagement. <a href="#">J Biol Chem. 286: 7822-9.</a></li><li>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. <a href="#">FASEB J. 25 (6): 1972-82.</a></li><li>9. Dewals, B.G. <i>et al.</i> (2010) IL-4/Ralpha-independent expression of mannose receptor and Ym1 by macrophages depends on their IL-10 responsiveness. <a href="#">PLoS Negl Trop Dis. 4: e689.</a></li><li>10. Galès, A. <i>et al.</i> (2010) PPARgamma controls dectin-1 expression required for host antifungal defense against <i>Candida albicans</i>. <a href="#">PLoS Pathog. 6: e1000714.</a></li><li>11. Coates, P.J. <i>et al.</i> (2008) Indirect macrophage responses to ionizing radiation: implications for genotype-dependent bystander signaling. <a href="#">Cancer Res. 68: 450-6.</a></li><li>12. Dioszeghy, V. <i>et al.</i> (2008) 12/15-Lipoxygenase regulates the inflammatory response to bacterial products <i>in vivo</i>. <a href="#">J Immunol. 181: 6514-24.</a></li><li>13. Hohl, T.M. (2008) Caspofungin modulates inflammatory responses to <i>Aspergillus fumigatus</i> through stage-specific effects on fungal beta-glucan exposure. <a href="#">J Infect Dis. 198: 176-85.</a></li><li>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. <a href="#">J Biol Chem. 281: 5771-9.</a></li></ol>
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<b>Storage</b>	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Guarantee</b>	18 months from date of despatch.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10041 available at: 10041: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf</a>
<b>Regulatory</b>	For research purposes only

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