

## Datasheet: MCA2415EL

<b>Description:</b>	RAT ANTI MOUSE DECTIN-2:Low Endotoxin
<b>Specificity:</b>	DECTIN-2
<b>Format:</b>	Low Endotoxin
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	D2.11E4
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	0.5 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			1/10 - 1/100
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

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.

**(1)Membrane permeabilization is required for this application. Bio-Rad recommends the use of the Fixation buffer ([BUF071](#)) and ICS Perm/Wash buffer ([BUF072](#)) for this purpose.**

<b>Target Species</b>	Mouse
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	None present
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Dectin-2 (extracellular domain) Fc Fusion protein.

**External Database  
Links**

**UniProt:**

[Q9JKF4](#)    [Related reagents](#)

**Entrez Gene:**

[56620](#)    Clec4n    [Related reagents](#)

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**Synonyms**

Clec4n, Clecsf10, Dectin2

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**RRID**

AB\_567285

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**Specificity**

**Rat anti Mouse Dectin-2 antibody, clone D2.11E4** recognizes mouse DC-associated C-type lectin-2 (Dectin-2), a type II transmembrane protein that is a member of the C-type lectin superfamily. In mouse, dectin-2 is predominantly expressed on tissue macrophages and some dendritic cells. Clone D2.11E4 does not stain brain microglia or meningeal macrophages.

Significant expression of Dectin-2 has been reported on macrophages in the red pulp and marginal zones of the spleen, kupffer cells in the liver and alveolar macrophages in the lung. Peripheral blood monocytes express low levels of dectin-2 but transient up-regulation of expression has been demonstrated on monocytes at sites of inflammation.

Dectin-2 binds high mannose carbohydrates and appears to play a role in immune surveillance against fungal pathogens such as *Candida albicans* ([Goyal et al. 2018](#)).

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**Flow Cytometry**

Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul.

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**References**

1. Taylor, P.R. *et al.* (2005) Dectin-2 is predominantly myeloid restricted and exhibits unique activation-dependent expression on maturing inflammatory monocytes elicited *in vivo*. [Eur J Immunol. 35 \(7\): 2163-74.](#)
2. Suram, S. *et al.* (2010) Pathways regulating cytosolic phospholipase A2 activation and eicosanoid production in macrophages by *Candida albicans*. [J Biol Chem. 285: 30676-85.](#)
3. Barrett, N.A. *et al.* (2011) Dectin-2 mediates Th2 immunity through the generation of cysteinyl leukotrienes. [J Exp Med. 208: 593-604.](#)
4. Robinson, M. *et al.* (2009) Dectin-2 is a Syk-coupled pattern recognition receptor crucial for Th17 responses to fungal infection. [J Exp Med. 206:2037-51.](#)
5. McDonald, J.U. *et al.* (2012) Differential dependencies of monocytes and neutrophils on dectin-1, dectin-2 and complement for the recognition of fungal particles in inflammation. [PLoS One. 7: e45781.](#)
6. Ritter, M. *et al.* (2010) *Schistosoma mansoni* triggers Dectin-2, which activates the Nlrp3 inflammasome and alters adaptive immune responses. [Proc Natl Acad Sci U S A. 107: 20459-64.](#)
7. Pugholm, L.H. *et al.* (2015) *In vitro* Assay for Screening of Optimal Targets for Antigen-Delivery to Murine Dendritic Cells. [Scand J Immunol. 82 \(6\): 498-505.](#)
8. Lee, M.J. *et al.* (2016) Phosphoinositide 3-Kinase  $\delta$  Regulates Dectin-2 Signaling and the Generation of Th2 and Th17 Immunity. [J Immunol. 197 \(1\): 278-87.](#)
9. Xiao, Y. *et al.* (2016) Targeting CBLB as a potential therapeutic approach for disseminated candidiasis. [Nat Med. Jul 18. \[Epub ahead of print\]](#)
10. Roth, S. *et al.* (2016) Vav Proteins Are Key Regulators of Card9 Signaling for Innate Antifungal Immunity [Cell Reports. 17 \(10\): 2572-83.](#)
11. Simons, B. *et al.* (2017) PGI2 Controls Pulmonary NK Cells That Prevent Airway Sensitization to House Dust Mite Allergen. [J Immunol. 198 \(1\): 461-71.](#)
12. Chang, T.H. *et al.* (2017) Dectin-2 is a primary receptor for NLRP3 inflammasome activation in dendritic cell response to *Histoplasma capsulatum*. [PLoS Pathog. 13 \(7\): e1006485.](#)

**Storage** Store at -20°C only.

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10162 available at:  
10162: <https://www.bio-rad-antibodies.com/uploads/MSDS/10162.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight®800</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight®800</a>

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:Low Endotoxin \(MCA1212EL\)](#)

**North & South** Tel: +1 800 265 7376

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