

## Datasheet: MCA4661FT

<b>Description:</b>	MOUSE ANTI HUMAN DECTIN-1:FITC
<b>Specificity:</b>	DECTIN-1
<b>Other names:</b>	BETA GLUCAN RECEPTOR, CD369
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	GE2
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	25 µg

### 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	▪			Neat - 1/10

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.

<b>Target Species</b>	Human		
<b>Product Form</b>	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	FITC	490	525
<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>	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin		
<b>Approx. Protein Concentrations</b>	IgG concentration 0.1mg/ml		

**Immunogen** NIH3T3 cells expressing full length Beta-glucan receptor.

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**External Database**

**Links**

**UniProt:**

[Q9BXN2](#) [Related reagents](#)

**Entrez Gene:**

[64581](#) CLEC7A [Related reagents](#)

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**Synonyms**

BGR, CLECSF12, DECTIN1

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**RRID**

AB\_1658102

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**Fusion Partners**

Spleen cells from immunized C57BL/6 mice were fused with cells of the murine SP2 myeloma cell line.

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**Specificity**

**Mouse anti Human Dectin-1 antibody, clone GE2** recognizes human Dectin-1, also known as beta-glucan receptor ( $\beta$ GR), a C-type lectin domain family member. It is a major pathogen pattern-recognition receptor that binds beta-glucans, glucose polymers that form cell-wall components or exopolymers of yeasts, fungi and some bacteria. Beta-glucans have also been used experimentally and therapeutically as immunomodulators that enhance resistance to bacterial, yeast, viral and protozoan infections, as well as tumor formation. Dectin-1 also acts as a co-stimulatory molecule on T-cells to induce their proliferation and is necessary for the TLR2-mediated inflammatory response. It is highly expressed on peripheral blood leukocytes and dendritic cells.

Human Dectin-1 has two major ( $\beta$ GR-A and  $\beta$ GR-B) and several minor isoforms.  $\beta$ GR-A and  $\beta$ GR-B differ by the presence and absence, respectively, of a stalk region. Mouse anti Human Dectin-1 antibody, clone GE2 recognizes both major isoforms. Clone GE2 could be used to inhibit receptor function.

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**Flow Cytometry**

Use 10ul of the suggested working dilution to label  $1 \times 10^6$  cells in 100ul.

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**References**

1. Harnack, U. *et al.* (2011) Yeast-derived beta-(1-3),(1-6)-D-glucan induces up-regulation of CD86 on dectin-1-positive human B-lymphoma cell lines. [Anticancer Res. 31 \(12\): 4195-9.](#)
2. Kyrnizi, I. *et al.* (2013) Corticosteroids block autophagy protein recruitment in *Aspergillus fumigatus* phagosomes via targeting dectin-1/Syk kinase signaling. [J Immunol. 191 \(3\): 1287-99.](#)
3. Loures, F.V. *et al.* (2015) Recognition of *Aspergillus fumigatus* hyphae by human plasmacytoid dendritic cells is mediated by dectin-2 and results in formation of extracellular traps. [PLoS Pathog. 11 \(2\): e1004643.](#)
4. Ali, M.F. *et al.* (2017) Canonical Stimulation of the NLRP3 Inflammasome by Fungal Antigens Links Innate and Adaptive B-Lymphocyte Responses by Modulating IL-1 $\beta$  and IgM Production. [Front Immunol. 8: 1504.](#)
5. Kan, B. *et al.* (2018) Cellular metabolism constrains innate immune responses in early human ontogeny. [Nat Commun. 9 \(1\): 4822.](#)
6. de Quaglia E Silva. J.C.*et al.* (2019) Involvement of the Dectin-1 Receptor upon the

Effector Mechanisms of Human Phagocytic Cells against *Paracoccidioides brasiliensis*. [J Immunol Res. 2019: 1529189.](#)

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**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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA4661FT>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

### Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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

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Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

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)  
'M385698:210513'

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