

Datasheet: MCA4661F

Description:	MOUSE ANTI HUMAN DECTIN-1:FITC
Specificity:	DECTIN-1
Other names:	BETA GLUCAN RECEPTOR, CD369
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	GE2
Isotype:	IgG1
Quantity:	0.1 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	▪			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.

Target Species	Human		
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 A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.1mg/ml		

Immunogen NIH3T3 cells expressing full length Beta-glucan receptor.

External Database

Links

UniProt:

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

Entrez Gene:

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

Synonyms

BGR, CLECSF12, DECTIN1

RRID

AB_1658101

Fusion Partners

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

Specificity

Mouse anti Human Dectin-1 antibody, clone GE2 recognizes human Dectin-1, also known as beta-glucan receptor (β 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 (β GR-A and β GR-B) and several minor isoforms. β GR-A and β 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.

Flow Cytometry

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

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 β 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.](#)

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.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA4661F>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

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

Recommended Useful Reagents

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

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

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