

## ARG23644 anti-CLEC7A antibody [GE2] (low endotoxin)

Package: 100 µg

Store at: -20°C

### Summary

Product Description	Azide free and low endotoxin Mouse Monoclonal antibody [GE2] recognizes CLEC7A. This product 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 differs 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.
Tested Reactivity	Hu
Tested Application	FACS, FuncSt
Host	Mouse
Clonality	Monoclonal
Clone	GE2
Isotype	IgG1
Target Name	CLEC7A
Species	Human
Immunogen	NIH3T3 cells expressing full length CLEC7A.
Conjugation	Un-conjugated
Alternate Names	C-type lectin superfamily member 12; CD369; Dectin-1; Dendritic cell-associated C-type lectin 1; CLECSF12; CANDF4; BGR; Beta-glucan receptor; C-type lectin domain family 7 member A; DC-associated C-type lectin 1; DECTIN1

### Application Instructions

Application table	Application	Dilution
	FACS	Neat - 1:10
	FuncSt	Assay-dependent
Application Note	FACS: Use 10 µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100 µl. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

### Properties

Form	Liquid
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Purification	Purification with Protein A.
Purification Note	Low endotoxin
Buffer	PBS.
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

## Bioinformation

Gene Symbol	CLEC7A
Gene Full Name	C-type lectin domain family 7, member A
Background	This gene encodes a member of the C-type lectin/C-type lectin-like domain (CTL/CTLD) superfamily. The encoded glycoprotein is a small type II membrane receptor with an extracellular C-type lectin-like domain fold and a cytoplasmic domain with an immunoreceptor tyrosine-based activation motif. It functions as a pattern-recognition receptor that recognizes a variety of beta-1,3-linked and beta-1,6-linked glucans from fungi and plants, and in this way plays a role in innate immune response. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. This gene is closely linked to other CTL/CTLD superfamily members on chromosome 12p13 in the natural killer gene complex region. [provided by RefSeq, Jul 2008]
Function	Lectin that functions as pattern receptor specific for beta-1,3-linked and beta-1,6-linked glucans, such as cell wall constituents from pathogenic bacteria and fungi. Necessary for the TLR2-mediated inflammatory response and for TLR2-mediated activation of NF-kappa-B. Enhances cytokine production in macrophages and dendritic cells. Mediates production of reactive oxygen species in the cell. Mediates phagocytosis of C.albicans conidia. Binds T-cells in a way that does not involve their surface glycans and plays a role in T-cell activation. Stimulates T-cell proliferation (By similarity). [UniProt]
Calculated Mw	28 kDa
PTM	Phosphorylated on tyrosine residues in response to glucan binding. [UniProt]