

Mouse Dectin-2/CLEC6A α Isoform APC-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: FAB1525A
100 TESTS

DESCRIPTION

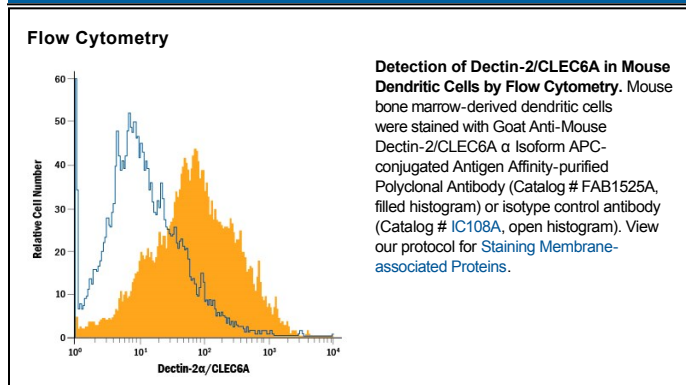
Species Reactivity	Mouse
Specificity	Detects mouse Dectin-2 α /CLEC6A α Isoform in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human DLEC is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Dectin-2 α /CLEC6A Phe43-Leu209 Accession # Q9JKF4
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Flow Cytometry	10 μ L/10 ⁶ cells	See Below

DATA



PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Dectin-2 α , also known as CLEC6A, CLECSF10, and NKCL, belongs to the C-type lectin family of transmembrane immune regulatory glycoproteins. Dectin-2 α , CLEC4A/DCIR, CLEC4B/DCAR, CLEC4C/DLEC, CLEC4D/MCL, and CLEC4E/mincle constitute a subgroup of these molecules that exhibit approximately 40% amino acid (aa) sequence identity in their extracellular domains (ECD) and have a conserved cysteine spacing in their carbohydrate recognition domains (CRD) (1, 2). Mature mouse Dectin-2 α consists of a short cytoplasmic tail, a transmembrane segment, and an ECD with a stalk region and one CRD (3, 4). Alternate splicing leads to partial deletion of the transmembrane segment and stalk (β isoform) or a portion of the CRD (γ isoform) (4). The full length Dectin-2 α isoform is a 27 kDa molecule that is primarily expressed on the surface of tissue macrophages and their precursors (3-6). The CRD of Dectin-2 α contains an EPN motif which is characteristic of calcium-dependent mannose-binding lectins. Dectin-2 α selectively interacts with high mannose structures in the Man₉GlcNAc₂ configuration (7). It mediates the recognition of a variety of microorganisms, particularly the filamentous forms of yeast and fungi (7, 8). The short cytoplasmic tail does not contain signaling motifs but mediates association with the ITAM-containing Fc receptor γ subunit in macrophages (8). Ligand of Dectin-2 α induces tyrosine phosphorylation of the γ subunit, activation of NF κ B, and enhanced release of TNF- α and IL-1 α (8). Macrophage Dectin-2 α is upregulated *in vivo* by inflammatory stimuli and UV-B irradiation (6). It mediates the breaking of UV-induced tolerance by interacting with CD4⁺CD25⁺ regulatory T cells which then induce dendritic cells to release IL-4, IL-10, and TGF- β (9). Within the ECD, mouse Dectin-2 α shares 71% aa sequence identity with human and bovine Dectin-2.

References:

1. Kanazawa, N. (2007) *J. Dermatol. Sci.* **45**:77.
2. Kanazawa, N. *et al.* (2004) *Immunobiology* **209**:179.
3. Fernandes, M.J. *et al.* (1999) *Cancer Res.* **59**:2709.
4. Ariizumi, K. *et al.* (2000) *J. Biol. Chem.* **275**:11957.
5. Bonkobara, M. *et al.* (2005) *Photochem. Photobiol.* **81**:944.
6. Taylor, P.R. *et al.* (2005) *Eur. J. Immunol.* **35**:2163.
7. McGreal, E.P. *et al.* (2006) *Glycobiology* **16**:422.
8. Sato, K. *et al.* (2006) *J. Biol. Chem.* **281**:38854.
9. Aragane, Y. *et al.* (2003) *J. Immunol.* **171**:3801.