

Human Dectin-2/CLEC6A Alexa Fluor® 700-conjugated Antibody

Monoclonal Mouse IgG₁ Clone # 545943 Catalog Number: FAB3114N

100 Tests

DESCRIPTION		
Species Reactivity	Human	
Specificity	ificity Detects human Dectin-2/CLEC6A in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse Dectin-2α, recombir human (rh) CLEC9A, rhCLEC4D, or rhDLEC is observed.	
Source	Monoclonal Mouse IgG ₁ Clone # 545943	
Purification	Protein A or G purified from hybridoma culture supernatant	
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Dectin-2/CLEC6A Thr46-Leu209 Accession # Q6EIG7	
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 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	5 ul /10 ⁶ cells	See Below	



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BACKGROUND

Dectin-2, also known as CLEC6A, CLECSF10, and NKCL, belongs to the C-type lectin family of transmembrane immune regulatory glycoproteins. Dectin-2, plus CLEC4A-E constitute a subgroup of 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 human Dectin-2 is a type II transmembrane protein with a short cytoplasmic tail, a transmembrane segment, and a 168 aa ECD with a stalk region and one CRD (3, 4). Within the ECD, human Dectin-2 shares 71% and 75% aa sequence identity with bovine and mouse Dectin-2, respectively. An alternately spliced β isoform has a deletion of portions of the transmembrane and cytoplasmic regions (5). Full length Dectin-2 is a 27 kDa molecule that is expressed on monocytes, tissue macrophages, and activated CD4⁺ T cells (4-6). The CRD of Dectin-2 contains an EPN motif which is characteristic of calcium-dependent mannose-binding lectins. Dectin-2 selectively interacts with high mannose structures in the MangGIcNAc₂ configuration (7). It mediates the recognition of a variety of microorganisms, particularly the filamentous forms of yeast and fungii (7, 8). The short cytoplasmic tail does not contain signaling motifs but mediates association with the ITAM-containing Fc receptor γ subunit on macrophages (8). Ligation of Dectin-2 induces tyrosine phosphorylation of the γ subunit, activation of NFkB, and enhanced release of TNF- α and IL-1ra (8). Macrophage Dectin-2 is up-regulated *in vivo* by inflammatory stimuli and UV-B irradiation (5, 6, 9). Dectin-2 is known to participate in UV-induced immunosuppression by interacting with CD4⁺CD25⁺ regulatory T cells, which then induce dendritic cells to release IL-4, IL-10, and TGF- β (10).

References:

- 1. Kanazawa, N. (2007) J. Dermatol. Sci. **45**:77.
- 2. Kanazawa, N. et al. (2004) Immunobiology 209:179.
- 3. Flornes, L.M. et al. (2004) Immunogenetics 56:506.
- 4. Kanazawa, N. et al. (2004) J. Invest. Dermatol. 122:1522.
- 5. Gavino, A.C. *et al.* (2005) Exp. Dermatol. **14**:281.
- 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. Bonkobara, M. et al. (2005) Photochem. Photobiol. 81:944.
- 10. Aragane, Y. *et al.* (2003) J. Immunol. **171**:3801.

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