Revision 1

Dectin-1 Antibody

#9051 Store at -20C

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	14-45	Rabbit	#Q9BXN2	64581

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Dectin-1 Antibody recognizes endogenous levels of total Dectin-1 protein. This antibody cross-reacts with an 80 kDa protein of unknown origin. Alternative splicing of the Dectin-1 transcript can lead to eight isoforms with predicted molecular weights ranging from 5-27 kDa. Glycosylation causes Dectin-1 to run higher than its predicted molecular weight.

Species predicted to react based on 100% sequence homology

Monkey

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human Dectin-1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Dectin-1, also known as Clec7a, is a C-type lectin receptor expressed by macrophages, monocytes, dendritic cells, neutrophils, and a subset of γδ T cells (1,2). Dectin-1 is a glycoprotein with eight different isoforms, generated through alternative splicing (3-5). It plays an important role in anti-fungal immunity by acting as a pattern recognition receptor for β-glucans found on the cell wall of fungi and some bacteria (5,6). Dectin-1 is composed of a short amino-terminal cytoplasmic domain containing an ITAM-like motif, a transmembrane domain, and an extracellular carboxy-terminal C-type lectin domain (5). Dectin-1 recognizes β-glucans through its C-type lectin domain and transduces signals through its ITAM-like motif by recruiting and activating Syk (7,8). Dendritic cells activated through Dectin-1 promote differentiation of Th17 cells by producing IL-6 and IL-23 (9).

Background References

1. Taylor, P.R. et al. (2002) *J Immunol* 169, 3876-82.
2. Martin, B. et al. (2009) *Immunity* 31, 321-30.
3. Ariizumi, K. et al. (2000) *J Biol Chem* 275, 20157-67.
4. Kato, Y. et al. (2006) *Biol Pharm Bull* 29, 1580-6.
5. Willment, J.A. et al. (2001) *J Biol Chem* 276, 43818-23.
6. Brown, G.D. and Gordon, S. (2001) *Nature* 413, 36-7.
7. Rogers, N.C. et al. (2005) *Immunity* 22, 507-17.
8. Underhill, D.M. et al. (2005) *Blood* 106, 2543-50.
9. LeibundGut-Landmann, S. et al. (2007) *Nat Immunol* 8, 630-8.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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