



20150122ML

# Anti-Mouse Dectin-2 (#7B45)

**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>103-M371</b>
Size:	100 µg
Lot. No.:	According to product label

**Preparation:** This antibody was produced from a hybridoma (mouse myeloma fused with spleen cells from a rat) immunized with mouse recombinant protein of Dectin-2a.

## Target Background

<b>Synonyms (Target):</b>	Clec4n; Nkcl; Clec6a; Clecsl10
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Dectin2 $\alpha$  or Dectin2, also known as CLEC6A, CLECSF10, and NKCL, belongs to the Ctype lectin family of transmembrane immune regulatory glycoproteins. Dectin 2 $\alpha$ , 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). Mature mouse Dectin2 $\alpha$  consists of a short cytoplasmic tail, a transmembrane segment, and an ECD with a stalk region and one CRD. Alternate splicing leads to partial deletion of the transmembrane segment and stalk ( $\beta$  isoform) or a portion of the CRD ( $\gamma$  isoform). The full length Dectin2 $\alpha$  isoform is a 27 kDa molecule that is primarily expressed on the surface of tissue macrophages and their precursors. The CRD of Dectin2 $\alpha$  contains an EPN motif which is characteristic of calciumdependent mannosebinding lectins. Dectin2 $\alpha$  selectively interacts with high mannose structures in the Man9GlcNAc2 configuration. It mediates the recognition of a variety of microorganisms, particularly the filamentous forms of yeast and fungi. The short cytoplasmic tail does not contain signaling motifs but mediates association with the ITAMcontaining Fc receptor  $\gamma$  subunit in macrophages. Ligation of Dectin2 $\alpha$  induces tyrosine phosphorylation of the  $\gamma$  subunit, activation of NF $\kappa$ B, and enhanced release of TNF $\alpha$  and IL1ra. Macrophage Dectin2 $\alpha$  is upregulated in vivo by inflammatory stimuli and UVB irradiation. It mediates the breaking of UVinduced tolerance by interacting with CD4+CD25+ regulatory T cells which then induce dendritic cells to release IL4, IL10, and TGF $\beta$ . Within the ECD, mouse Dectin2 $\alpha$  shares 71% aa sequence identity with human and bovine Dectin2.

## Database References Target

<b>Protein RefSeq:</b>	NP_064385.1
<b>Uniprot ID:</b>	Q9JKF4
<b>mRNA RefSeq:</b>	NM_020001.2

## Product Specifications

<b>Host</b>	Rat
<b>Reactivity against</b>	Mouse
<b>Clonality</b>	Monoclonal Antibody
<b>Clone</b>	(#7B45)
<b>Isotype</b>	IgG2
<b>Purification</b>	Protein G/A chromatography
<b>Antigen</b>	Mouse recombinant protein Dectin-2
<b>Formulation</b>	lyophilized
<b>Reconstitution buffer</b>	PBS (sterile)

**Reconstitution:** Reconstitute the antibody with 200 µl sterile PBS and the final concentration is 500 µg/ml.

**Stability:** Lyophilized samples are stable for 2 years from date of receipt when stored at -70°C. Reconstituted antibody can be aliquoted and stored frozen at < -20 °C for at least for six months without detectable loss of activity.

**Remarks:** This antibody detects specifically mouse Dectin-2 with WB.

**AVOID REPEATED FREEZE AND THAW CYCLES!**

## Applications

The antibody can be used within the following applications:

WB

### Recommended usage:

Western Blot: 1:500 - 1:2000

**NOTE: OPTIMAL DILUTIONS SHOULD BE DETERMINED BY EACH LABORATORY FOR EACH APPLICATION!**