



20150217ML

# Anti-Human MD-1 (#1X55)

## Product Specifications

<b>Host</b>	Mouse
<b>Reactivity against</b>	Human
<b>Clonality</b>	Monoclonal Antibody
<b>Clone</b>	(#1X55)
<b>Isotype</b>	IgG1
<b>Purification</b>	Protein G chromatography
<b>Antigen</b>	recombinant human MD-1
<b>Formulation</b>	lyophilized
<b>Reconstitution buffer</b>	PBS (sterile)

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

<b>Cat.-no.:</b>	<b>101-M566</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 mouse) immunized with human recombinant protein of MD-1.

## Target Background

<b>Synonyms (Target):</b>	LY86; MD-1; MMD-1; dJ80N2.1; RP1-80N2.1
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MD1 is a secreted glycoprotein that is associated with RP105 and is required for efficient RP105 cell surface expression and function. RP105 is a type I transmembrane glycoprotein with extracellular leucine rich repeats (LRR) typically found in Toll-like receptor (TLR) family members. However, RP105 has a short cytoplasmic tail and lacks the Toll-IL1 R (TIR) domain that defines the IL1 R/TLR superfamily. RP105 plays an important role in B-cell activation by bacterial lipopolysaccharide (LPS). It is expressed primarily on mature B cells, dendritic cells and macrophages. Human MD1 cDNA encodes a 162 amino acid (aa) precursor protein with a putative 19 aa signal peptide and two potential N-linked glycosylation sites. It shares 38% and 66% amino acid sequence identity with chicken and mouse MD1 respectively. MD1 is mainly expressed in spleen, and also detectable in liver, brain, thymus, and kidney. The cell surface RP105/MD 1 complex, in conjunction with TLR4, mediates the innate immune response to LPS in B cells. Activation of the RP105 complex has been shown to protect against apoptosis, induce B-cell proliferation and upregulate B7.2, a costimulatory molecule. Since MD1 is also expressed in liver and brain where RP105 is absent, MD1 may also be associated with other LRR-containing molecules, or have additional functions outside the immune system.

## Database References Target

<b>Protein RefSeq:</b>	NP_004262.1
<b>Uniprot ID:</b>	O95711
<b>mRNA RefSeq:</b>	NM_004271.3

**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 was selected for its ability to detect human MD-1.

**AVOID REPEATED FREEZE AND THAW CYCLES!**

## Applications

The antibody can be used within the following applications:

WB

**Recommended usage:**

WB: Use at 1:500-1000

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