10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

RP105 Antibody

Catalog # ASC10430

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q99467
Other Accession	BAA12019, 1843411
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	74179
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	RP105 antibody can be used for the detection of RP105 by Western blot at 0.5 - 1 g/mL. Despite its predicted molecular weight, RP105 often migrates at 95 - 105 kDa. Antibody can also be used for immunohistochemistry starting at 2 g/mL. For immunofluorescence start at 10 g/mL.

Additional Information

Gene ID	4064
Other Names	RP105 Antibody: LY64, Ly78, RP105, LY64, CD180 antigen, Lymphocyte antigen 64, CD180 molecule
Target/Specificity	CD180;
Reconstitution & Storage	RP105 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	RP105 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CD180
Synonyms	LY64, RP105
Function	Pattern recognition receptor predominantly expressed on B- cells, dendritic cells, and certain monocytes/macrophages, structurally resembling Toll-like receptors (TLRs) that plays a role in modulating immune responses (PubMed:15852007). While ressembling a TLR, lacks the intracellular TIR (Toll/IL-1R) signaling domain and thus does not directly transduce signals. Instead, modulates immune responses, often in conjunction with other TLRs.

	For example, in cooperation with MD- 1/LY86, interacts directly with the TLR4 signaling complex, inhibiting its ability to bind microbial ligand (PubMed:15852007).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Expressed mainly on mature peripherical B cells. Detected in spleen, lymph node and appendix. Not detected in pre-B and -T cells

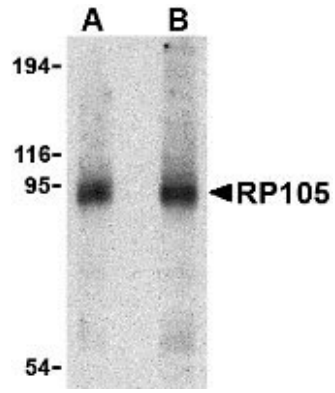
Background

RP105 Antibody: Toll-like receptors (TLRs) are evolutionarily conserved pattern-recognition molecules resembling the toll proteins that mediate antimicrobial responses in Drosophila. These proteins recognize different microbial products during infection and serve as an important link between the innate and adaptive immune responses. The signaling of these TLRs is kept under tight control by the expression of endogenous inhibiting proteins. One such protein is RP105, a recently identified homolog to TLR4 that, with MD-1, interacts with and inhibits the TLR4/MD-2 signaling pathway. It has also been suggested that the RP105/MD-1 complex influences antibody production mediated by both TLR4/MD-2 and TLR2 receptor complexes.

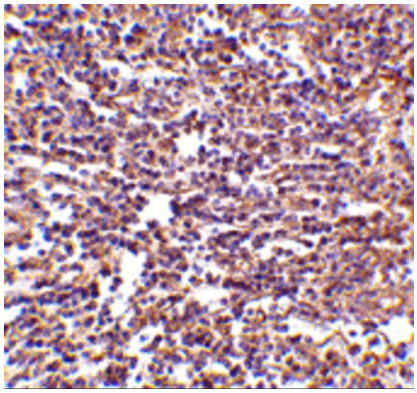
References

Takeda K, Kaisho T, and Akira S. Toll-like receptors. Annu. Rev. Immunol. 2003; 21:335-76.
Janeway CA Jr. and Medzhitov R. Innate immune recognition. Annu. Rev. Immunol. 2002; 20:197-216.
Divanovic S, Trompette A, Atabani SF, et al. Inhibition of TLR-4/MD-2 signaling by RP105/MD-1. J. Endotoxin Res. 2005; 11:363-8.
Nagai Y, Kobayashi T, Motoi Y, et al. The radioprotective 105/MD-1 complex links TLR2 and TLR4/MD-2 in antibody response to microbial membranes. J. Immunol. 2005; 174:7043-9.

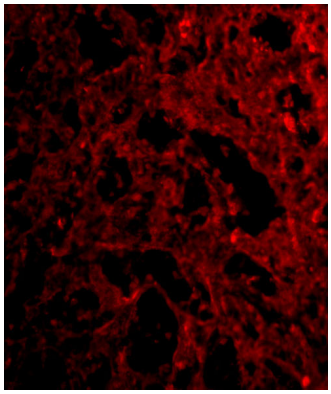
Images



Western blot analysis of RP105 in human spleen tissue lysate with RP105 antibody at (A) 0.5 and (B) 1 µg/mL.



Immunohistochemistry of RP105 in human spleen tissue with RP105 antibody at 2 µg/mL.



Immunofluorescence of RP105 in human spleen tissue with RP105 antibody at 10 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.