



Datasheet for ABIN2192087
anti-LY96 antibody (FITC)



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Overview

Quantity:	100 µg
Target:	LY96
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This LY96 antibody is conjugated to FITC
Application:	Flow Cytometry (FACS)

Product Details

Immunogen:	TLR4/MD-2 expressing CHO cells/ chimeric TLR4/MD-2 fusion protein
Clone:	18H10
Sterility:	0.2 µm filtered

Target Details

Target:	LY96
Alternative Name:	Md-2 (LY96 Products)
Background:	The monoclonal antibody 18H10 reacts with MD-2, an accessory molecule of the Toll-like receptor 4 (TLR4, CD284). TLRs belong to a family of proteins that specifically recognizes and senses microbial products. They are highly conserved throughout evolution and act as innate immune recognition receptors against many pathogens. TLR4 is a functional receptor for gram-negative bacterial lipopolysaccharides (LPS). TLR4 associates with MD-2 which is absolutely

Target Details

required for LPS-induced activation of TLR4. MD-2 exists as a cell surface protein in association with TLR4. It also exists as secreted forms consisting of MD-2 monomers and multimers (sMD-2). Circulating sMD-2 is mainly present as a doublet of ~20 and 25 kD, representing differentially glycosylated forms. Unlike TLR4, sMD-2 binds directly LPS without the need of soluble CD14 (sCD14). However, LPS-MD-2 interactions are increased when LPS is pretreated with CD14. Only monomeric sMD-2 is biologically active and able to associate with TLR4 and LPS. sMD-2 circulates in plasma of healthy individuals as a non-active, polymeric protein. In septic plasma, the total amount of sMD-2 was strongly elevated and contained both sMD-2 polymers and monomers. Soluble MD-2 is proposed to be an important mediator of organ inflammation during sepsis. During experimental human endotoxemia, the monomeric and total sMD-2 content in plasma increased with the kinetics of an acute phase protein. This parallels enhanced TLR4 costimulatory activity. In vitro studies revealed that sMD-2 release appears to be restricted to endothelial and dendritic cells. The monoclonal antibody 18H10 reacts with MD-2. However, it does not react with sMD-2. In addition, the monoclonal antibody 18H10 is able to inhibit bacterial binding to MD-2. Aliases Lymphocyte antigen 96, ESOP-1, LY96

Pathways: [TLR Signaling](#), [Activation of Innate immune Response](#), [Cellular Response to Molecule of Bacterial Origin](#), [Toll-Like Receptors Cascades](#)

Application Details

Application Notes: For flow cytometry dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50.

Restrictions: For Research Use only

Handling

Buffer: PBS, containing 1 % bovine serum albumin and 0.02 % sodium azide.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: 4 °C

Storage Comment: Product should be stored at 4 °C. Under recommended storage conditions, product is stable for one year.

Handling

Expiry Date: 12 months

Publications

Product cited in: Zwirner, Felber, Burger, Bitter-Suermann, Riethmüller, Feucht: "Classical pathway of complement activation in mammalian kidneys." in: **Immunology**, Vol. 80, Issue 2, pp. 162-7, (1994) ([PubMed](#)).

Feucht, Schneeberger, Hillebrand, Burkhardt, Weiss, Riethmüller, Land, Albert: "Capillary deposition of C4d complement fragment and early renal graft loss." in: **Kidney international**, Vol. 43, Issue 6, pp. 1333-8, (1993) ([PubMed](#)).