Mouse MGL1/CD301a Alexa Fluor® 350-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF4938U
100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse MGL1/CD301a in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 5% cross-reactivity with recombinant mouse MGL2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse MGL1/CD301a Gln57-Ser304 Accession # AAH14811
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

CyTOF-ready	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.
Flow Cytometry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Mouse MGL1 (macrophage galactose N-acetyl-galactosamine (GalNAc) specific Lectin 1, CD301a), also called ASGP-BP (asialoglycoprotein binding protein), is a 38 kDa type II transmembrane glycoprotein of the C-type lectin family (1). Two MGL proteins are encoded by separate genes in the mouse, but share 91% amino acid (aa) identity in the extracellular domain (ECD) (2). Only one MGL occurs in human and rat, and this is more structurally similar to mouse MGL1 than MGL2. However, mouse MGL1 binds Lewis X, in contrast to human MGL and mouse MGL2 which both bind specifically to terminal GalNAc residues (2). Lewis X is a trisaccharide commonly found on leukocytes and some tumor cells. Both mouse MGL proteins are expressed on immature dendritic cells. Mouse MGL1 and MGL2 are markers for connective tissue macrophages of a type termed alternately activated macrophages. These macrophages are induced by IL-4 that is produced during Th2-mediated inflammatory responses to parasitic infections or allergic airway inflammation (3, 4). Quantitative RT-PCR after helminth infection shows a peak of MGL1 expression at 7 days, while MGL2 shows increasing expression for at least 29 days (3). This, and data from MGL1 knockout mice (5), indicates that MGL1 is critical during the formation of granulation tissue, with MGL2 remaining involved during chronic infection. Mouse MGL1 is synthesized with an N-terminal 35 aa cytoplasmic region, a 21 aa transmembrane segment and a 248 aa ECD. The ECD contains one 129 aa carbohydrate recognition domain (CRD) that shows 78% and 63% aa identity with rat and human MGL, respectively.

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