ARG23454
anti-CD11b + CD11c antibody [OX-42] (Biotin)

Package: 50 µg
Store at: 4°C

Summary

Product Description	Biotin-conjugated Mouse Monoclonal antibody [OX-42] recognizes CD11b + CD11c Mouse anti Rat CD11b, clone OX-42, recognizes rat CD11b, also known as integrin alpha-M, the receptor for the iC3b component of complement. CD11b is a 1151 amino acid single pass type 1 transmembrane glycoprotein posessing a single vWFA domain and multiple FG-GAP repeats. CD11b is expressed on most macrophages, including resident and activated peritoneal macrophages and Kupffer cells and around 35% of alveolar macrophages. The antibody also labels dendritic cells, granulocytes and microglia in the brain (Robinson et al.1986).Mouse anti Rat CD11b, clone OX-42 is reported to inhibit complement mediated rosettes (Robinson et al.1986) as well as inhibit myelin binding and uptake (van der Laan et al.1996).
Tested Reactivity	Rat
Tested Application	FACS, IHC-Fr
Host	Mouse
Clonality	Monoclonal
Clone	OX-42
Isotype	IgG2a
Target Name	CD11b + CD11c
Species	Rat
Immunogen	Resident rat peritoneal macrophages.
Conjugation	Biotin
Alternate Names	MAC1A; CR3A; CR-3 alpha chain; Cell surface glycoprotein MAC-1 subunit alpha; Integrin alpha-M; MAC-1; CD11 antigen-like family member B; Leukocyte adhesion receptor MO1; MO1A; SLEB6; Neutrophil adherence receptor; CD antigen CD11b; CD11B

Application Instructions

Application table

Application	Dilution
FACS	Neat - 1:20
IHC-Fr	Assay-dependent

Application Note: FACS: Use 10 µl of the suggested working dilution to label 10^6 cells in 100 µl.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

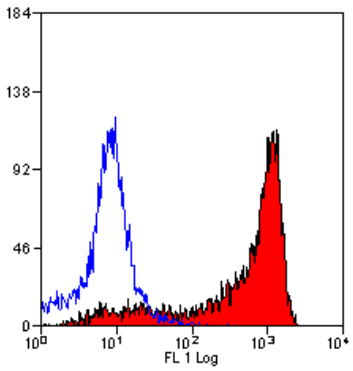
Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS, 0.09% Sodium azide and 1% BSA.

Preservative	0.09% Sodium azide
Stabilizer	1% BSA
Concentration	0.1 mg/ml
Storage instruction	Aliquot and store in the dark at 2-8°C. Keep protected from prolonged exposure to light. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	ITGAM
Gene Full Name	integrin, alpha M (complement component 3 receptor 3 subunit)
Background	CD11b (integrin alpha M chain): Integrins are heterodimeric integral membrane proteins composed of an alpha chain and a beta chain. This I-domain containing alpha integrin combines with the beta 2 chain (ITGB2) to form a leukocyte-specific integrin referred to as macrophage receptor 1 ('Mac-1'), or inactivated-C3b (iC3b) receptor 3 ('CR3'). The alpha M beta 2 integrin is important in the adherence of neutrophils and monocytes to stimulated endothelium, and also in the phagocytosis of complement coated particles. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Mar 2009]
Function	CD11b: Integrin ITGAM/ITGB2 is implicated in various adhesive interactions of monocytes, macrophages and granulocytes as well as in mediating the uptake of complement-coated particles and pathogens (PubMed:9558116, PubMed:20008295). It is identical with CR-3, the receptor for the iC3b fragment of the third complement component. It probably recognizes the R-G-D peptide in C3b. Integrin ITGAM/ITGB2 is also a receptor for fibrinogen, factor X and ICAM1. It recognizes P1 and P2 peptides of fibrinogen gamma chain. Regulates neutrophil migration (PubMed:28807980). In association with beta subunit ITGB2/CD18, required for CD177-PRTN3-mediated activation of TNF primed neutrophils (PubMed:21193407). May regulate phagocytosis-induced apoptosis in extravasated neutrophils. May play a role in mast cell development. Required with TYROBP/DAP12 in microglia to control production of microglial superoxide ions which promote the neuronal apoptosis that occurs during brain development. [UniProt]
Highlight	Related products: CD11 antibodies; CD11 ELISA Kits; CD11 Duos / Panels; Anti-Mouse IgG secondary antibodies; Related news: New antibody panels and duos for Tumor immune microenvironment
Research Area	MDSC Marker antibody; Myeloid-derived suppressor cell antibody
Calculated Mw	127 kDa

Images



ARG23454 anti-CD11b + CD11c antibody [OX-42] (Biotin) FACS image

Flow Cytometry: Rat peritoneal macrophages stained with ARG23454 anti-CD11b + CD11c antibody [OX-42] (Biotin).