ARG21350
anti-CD36 antibody [SMØ]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [SMØ] recognizes CD36. Clone SMØ recognizes the CD36 antigen, an ~88 kDa cell surface glycoprotein expressed by platelets, monocytes/macrophages and also by some microvascular endothelium and erythroid precursors. CD36 is the receptor for thrombospondin. When expressed by monocytes and macrophages, CD36 acts as a receptor for oxidized LDL and for apoptotic polymorphonuclear cells. Mouse anti Human CD36 antibody, clone SMØ partially inhibits collagen induced platelet aggregation and macrophage ingestion of apoptotic human neutrophils. It has been reported that this antibody may activate platelets as measured by fibrinogen binding, P-Selectin expression and Annexin V binding. anti-Human CD36 antibody, clone SMØ is also reported to block interaction of oxidised low-density lipoprotein (OXLDL) with CD36 [PMID:1384794].
Tested Reactivity	Hu
Tested Application	BL, ELISA, FACS, ICC/IF, IHC-Fr, IHC-P, WB
Specificity	Human CD36.
Host	Mouse
Clonality	Monoclonal
Clone	SMØ
Isotype	IgM, kappa
Target Name	CD36
Species	Human
Immunogen	Tonsil cells and peripheral blood mononuclear cells
Conjugation	Un-conjugated
Alternate Names	GPIV; CHDS7; Platelet glycoprotein 4; CD antigen CD36; PAS-4; PASIV; Glycoprotein IIIb; PAS IV; GPIIIB; FAT; SCARB3; GP3B; Leukocyte differentiation antigen CD36; Platelet collagen receptor; BDPLT10; Thrombospondin receptor; GP4; Fatty acid translocase; Platelet glycoprotein IV

Application Instructions

Application table

Application	Dilution
BL	Assay-dependent
ELISA	Assay-dependent
FACS	< 1 µg/10^6 cells
ICC/IF	1-10 µg/ml
IHC-Fr	0.2-10 µg/ml
IHC-P	0.2-10 µg/ml
WB	0.2-10 µg/ml

Application Note: WB: Under non-reducing condition.
Blocking: Clone SMØ inhibited (blocked) macrophagies recognition of aged neutrophils. [PMID:

1383273] Clone SMØ is also reported to block interaction of oxidised low-density lipoprotein (OXLDL) with CD36 [PMID:1384794]
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

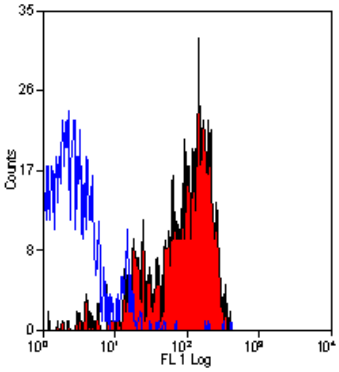
Properties

Form	Liquid
Buffer	BBS (pH 8.2)
Concentration	0.1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. 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

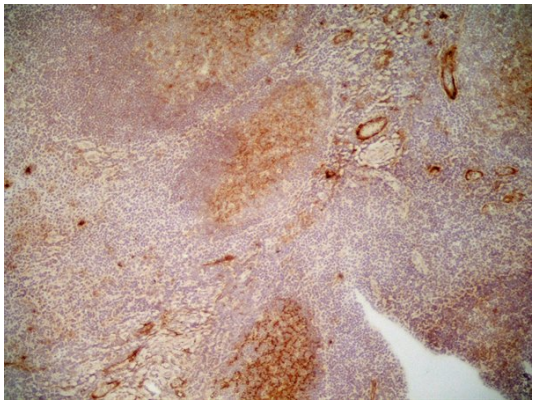
Database links	GeneID: 948 Human Swiss-port # P16671 Human
Gene Symbol	CD36
Gene Full Name	CD36 molecule (thrombospondin receptor)
Background	The protein encoded by this gene is the fourth major glycoprotein of the platelet surface and serves as a receptor for thrombospondin in platelets and various cell lines. Since thrombospondins are widely distributed proteins involved in a variety of adhesive processes, this protein may have important functions as a cell adhesion molecule. It binds to collagen, thrombospondin, anionic phospholipids and oxidized LDL. It directly mediates cytoadherence of Plasmodium falciparum parasitized erythrocytes and it binds long chain fatty acids and may function in the transport and/or as a regulator of fatty acid transport. Mutations in this gene cause platelet glycoprotein deficiency. Multiple alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Feb 2014]
Function	Binds to collagen, thrombospondin, anionic phospholipids and oxidized low-density lipoprotein (oxLDL). May function as a cell adhesion molecule. Directly mediates cytoadherence of Plasmodium falciparum parasitized erythrocytes. Binds long chain fatty acids and may function in the transport and/or as a regulator of fatty acid transport. Receptor for thombospondins, THBS1 AND THBS2, mediating their antiangiogenic effects. As a coreceptor for TLR4-TLR6 heterodimer, promotes inflammation in monocytes/macrophages. Upon ligand binding, such as oxLDL or amyloid-beta 42, rapidly induces the formation of a heterodimer of TLR4 and TLR6, which is internalized and triggers inflammatory response, leading to NF-kappa-B-dependent production of CXCL1, CXCL2 and CCL9 cytokines, via MYD88 signaling pathway, and CCL5 cytokine, via TICAM1 signaling pathway, as well as IL1B secretion. [UniProt]
Calculated Mw	53 kDa
PTM	N-glycosylated and O-glycosylated with a ratio of 2:1. Ubiquitinated at Lys-469 and Lys-472. Ubiquitination is induced by fatty acids such as oleic acid and leads to degradation by the proteasome (PubMed:21610069, PubMed:18353783). Ubiquitination and degradation are inhibited by insulin which blocks the effect of fatty acids (PubMed:18353783).

Images



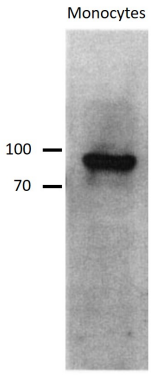
ARG21350 anti-CD36 antibody [SMØ] FACS image

Flow Cytometry: Human peripheral blood platelets stained with ARG21350 anti-CD36 antibody [SMØ].



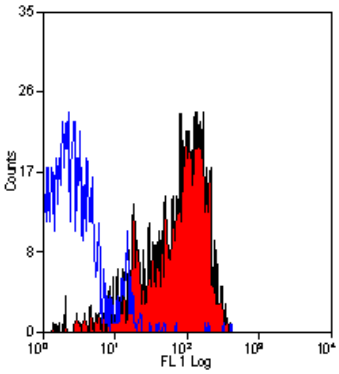
ARG21350 anti-CD36 antibody [SMØ] IHC-Fr image

Immunohistochemistry: Human tonsil cryosection stained with ARG21350 anti-CD36 antibody [SMØ]. (Low power).



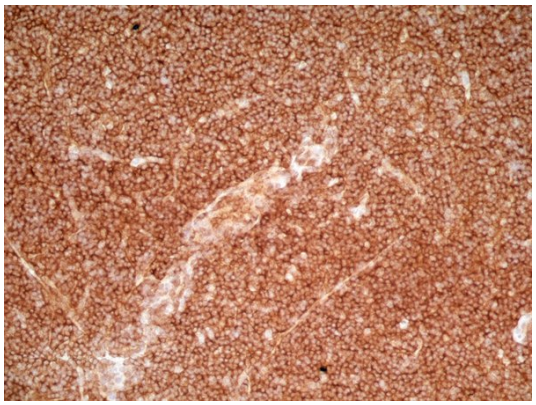
ARG21350 anti-CD36 antibody [SMØ] WB image

Western blot: Monocytes were lysed on ice in PBS containing 1% Triton X-100 and 10 mmol/L benzamidine for 15 min or were sonicated with repeated freeze-thaw cycles and then centrifuged at 13,000 Xg for 15 min at 4°C. 50 µg of cell protein (under non-reducing condition) was separated on a 7.5% SDS-polyacrylamide gel. The blot was stained with ARG21350 anti-CD36 antibody [SMØ].



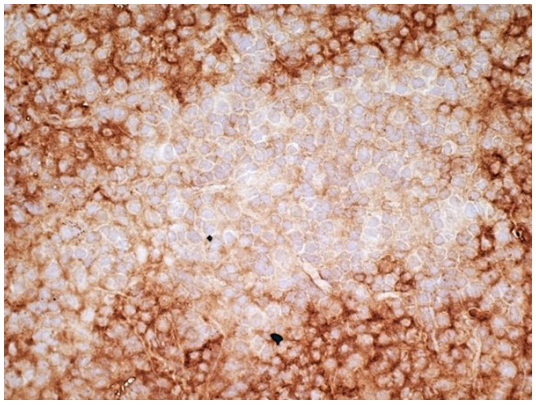
ARG21350 anti-CD36 antibody [SMØ] FACS image

Flow Cytometry: Human peripheral blood platelets stained with ARG21350 anti-CD36 antibody [SMØ].



ARG21350 anti-CD36 antibody [SMØ] IHC-Fr image

Immunohistochemistry: Human tonsil cryosection stained with ARG21350 anti-CD36 antibody [SMØ]. (Medium power).



ARG21350 anti-CD36 antibody [SMØ] IHC-Fr image

Immunohistochemistry: Human tonsil cryosection stained with ARG21350 anti-CD36 antibody [SMØ]. (High power).