Datasheet for ABIN94154

anti-CD47 antibody

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Overview

Quantity:	0.1 mg
Target:	CD47
Reactivity:	Human, Pig, Non-Human Primate
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD47 antibody is un-conjugated
Application:	Flow Cytometry (FACS), Western Blotting (WB), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	COS-7 (African green monkey) cells
Clone:	MEM-122
Isotype:	IgM
Specificity:	The antibody MEM-122 reacts with an extracellular epitope of CD47 (Integrin Associated Protein), a 50-55 kDa membrane adhesion molecule (thrombospondin receptor, immunoglobulin supergene family) expressed on leukocytes, platelets and erythrocytes. It is also expressed on epithelial cells, endothelial cells, fibroblasts and many tumor cell lines.
Cross-Reactivity (Details):	Non-Human Primates, Human, Porcine
Purification:	Purified by sequential steps of physicochemical fractionation (differential precipitation and solid-phase chromatography methods).
Purity:	> 95 % (by SDS-PAGE)

Target Details

Target:	CD47
Alternative Name:	CD47 (CD47 Products)
Background:	CD47 Molecule,CD47 (integrin-associated protein, IAP) is an ubiquitously expressed cell surface transmembrane glycoprotein interacting with several integrins and regulating their functions. Engagement of CD47 by soluble ligands or counter receptors modulates various signaling pathways, such as activation of heterotrimeric G proteins. Binding secreted thrombospondin-1, CD47 counteracts graft vascularization. CD47 acts also as a ligand for CD172a (signal regulatory protein alpha, SIRP alpha), an immune inhibitory receptor on macrophages, this interaction prevents phagocytosis of CD47-positive cells. Moreover, CD47-CD172a system affects cell migration, B cell adhesion and T cell activation. CD47 is also involved in modulation of chondrocyte responses to mechanical signals, and promotes neuronal development, being especially abundant in synapse-rich regions of brain and retina.,IAP, OA3, MER6
Gene ID:	961
UniProt:	Q08722

Application Details

Application Notes:	Flow cytometry: Recommended dilution: 1-4 µg/mL. Western blotting: Non-reducing conditions.
Restrictions:	For Research Use only

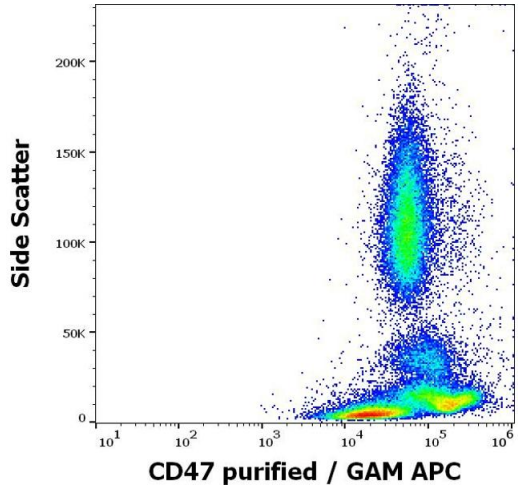
Handling

Concentration:	1 mg/mL
Buffer:	Tris buffered saline (TBS), pH 8.0, 15 mM 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.
Handling Advice:	**Do not freeze.**
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

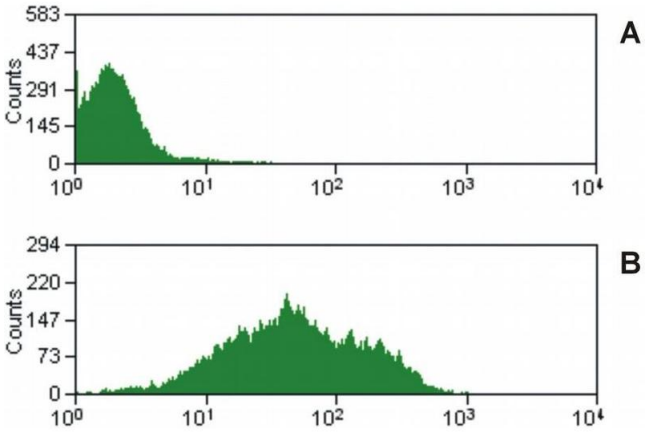
Product cited in:	Smith, Patel, Seatter, Deehan, Brown, Brooke, Goodridge, Howard, Rigley, Harnett, Harnett: "A novel MyD-1 (SIRP-1alpha) signaling pathway that inhibits LPS-induced TNFalpha production by monocytes." in: **Blood**, Vol. 102, Issue 7, pp. 2532-40, (2003) (PubMed).

Images



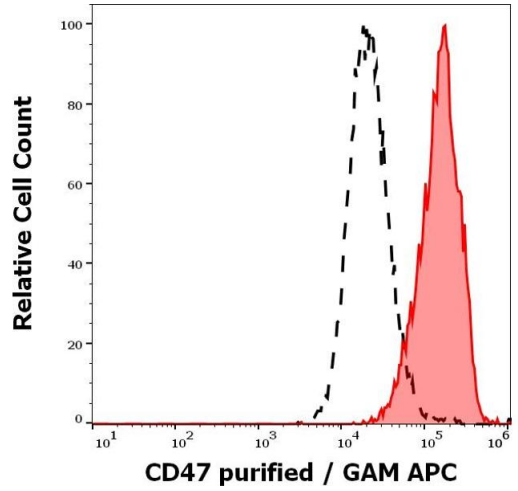
Flow Cytometry

Image 1. Flow cytometry surface staining pattern of human peripheral blood stained using anti-human CD47 (MEM-122) purified antibody (concentration in sample 4 µg/mL, GAM APC).



Flow Cytometry

Image 2. Surface staining of lysed and washed porcine peripheral blood with purified anti-CD47 (MEM-122) (detection by anti-mouse IgM FITC). Panel A - porcine PBMC stained with Isotype mouse IgM control (PFR-03



Flow Cytometry

Image 3. Separation of human lymphocytes (red-filled) from human CD47 negative blood debris (black-dashed) in flow cytometry analysis (surface staining) of human peripheral blood stained using anti-human CD47 (MEM-122) purified antibody (concentration in sample 4 µg/mL, GAM APC).