Mouse CD29 Monoclonal Antibody | anti-CD29 antibody

Mouse Anti Human CD29: FITC

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA50335	**Mouse**	**Human, MinkDoes not react with: Rat, Mouse**	**Flow Cytometry, Functional Assay**

PRODUCT SYNONYMS

CD29; Monoclonal Antibody; Mouse Anti Human CD29: FITC; CD29 antibody (12G10); Mouse anti Human CD29; anti-CD29 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, Mink Does not react with: Rat, Mouse
Clonality	Monoclonal
Isotype	IgG1
Clone Number	12G10
Purity/Purification	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant
Form/Format	Liquid; Phosphate Buffered Saline
Concentration	1.0 mg/ml (varies by lot)
Sequence Length	798
Applicable Applications for anti-CD29 antibody	FCM/FACS (Flow Cytometry)
Immunogen	Purified human beta1 integrin preparation from HT1080 fibrosarcoma cell extract
Conjugation	FITC
Carrier Free	Yes
Fusion Partners	Spleen cells from an immunised BALB/c mice were fused with cells of the X63/Ag8.653 mouse myeloma cell line.
Preservative Stabilizers	0.09% Sodium Azide
Preparation and Storage	Store at 4 degree C or at -20 degree C if preferred. This product should be stored undiluted. Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

IMAGES

Application Data
Published Customer image:Mouse Anti Human CD28 antibody, clone 12G10 used for the identification of rabbit adipose stromal stem cells by flow cytometry.Image caption:Rabbit fat pad originate performing ASC in vitro. a Photomicrographs of fibroblastoid elements adhering to plastic after adipose tissue digestion (upper left panel) subsequently generating colonies (upper right panel) visualized by Crystal Violet staining (lower left panel) and reaching confluence after three passages (lower right panel Ph1, scale bar 100 mum). b Rabbit ASC cumulative population doubling after passage 3(P3). c Mean values +/- SEM of antigen expressed on rabbit ASC by FACS (left table); representative immunophenotypical characterizations of rabbit ASC with cells positive for CD29, CD49e and CD90 (isotype control in gray). d Adipogenic differentiation after 10 days of induction visualized by Oil Red O staining and a corresponding non-induced control (upper panels; scale bar 100 mum). Representative osteogenic differentiation visualized by Alizarin Red staining after 14 days of induction and a corresponding non-induced control (lower panels)From: Piccinno MS, Veronesi E, Loschi P, Pignatti M, Murgia A, Grisendi G, Castelli I, Bernabei D, Candini O, Conte P, Paolucci P, Horwitz EM, De Santis G, Iughetti L, Dominici M.Adipose stromal/stem cells assist fat transplantation reducing necrosis and increasing graft performance.Apoptosis. 2013 Oct;18(10):1274-89.

Application Data
Figure A. Alexa Fluor 647 conjugated Mouse anti Human CD61 and RPE conjugated Mouse IgG1 isotype control . Figure B. Alexa Fluor 647 conjugated Mouse anti Human CD61 and RPE conjugated Mouse anti Human CD29 . All experiments performed on human blood gated on platelets in the presence of 10% human serum. Data acquired on the ZE5 Cell Analyzer.

Application Data
Figure A. FITC conjugated Mouse anti Human CD14 and RPE conjugated Mouse IgG1 isotype control . Figure B. FITC conjugated Mouse anti Human CD14 and RPE conjugated Mouse anti Human CD29 . All experiments performed on red cell lysed human blood gated on monocytes in the presence of 10% human serum. Data acquired on the ZE5 Cell Analyzer.

Application Data
Figure A. FITC conjugated Mouse anti Human CD61 and Alexa Fluor 647 conjugated Mouse IgG1 isotype control . Figure B. FITC conjugated Mouse anti Human CD61 and Alexa Fluor 647 conjugated Mouse anti Human CD29 . All experiments performed on red cell lysed human blood gated on live platelets, in the presence of 10% human serum. Data acquired on the ZE5 Cell Analyzer.

ADDITIONAL INFORMATION

Related Product Information for anti-CD29 antibody	Mouse anti Human CD29 monoclonal antibody, clone 12G10 recognizes human CD29 also known as beta1 integrin or VLA-4 subunit alpha. CD29 is a ~130 kDa under reducing, ~115 kDa under non-reducing conditions single pass type I transmembrane glycoprotein. CD29 acts as the common beta subunit of the heterodimeric very late antigens 1-6, complexing with CD49a-f respectively where it forms part of the receptors for laminin, collagen and fibronectin. the VLA heterodimers mediate cell-cell and cell-matrix interactions. Mouse anti Human CD29, clone 12G10 binding to cells adhering via VLA-4 results in actin cytoskeletal disruption and subsequent inhibition of attachment and spreading whilst 12G10 binding to cells adhering via VLA-5 results in enhancement of both these processes (Humphries et al. 2005). Clone 12G10 enhances alpha 5 beta 1-fibronectin interactions and binds to a region of CD25 containing the binding epitopes of several other anti CD29 antibody clones. However, unlike these, binding of 12G10 is enhanced in the presence of ligands such as fibronectin fragments (Mould et al. 1995). Binding of antibody clone 12G10 to the integrin beta1 subunit is affected by divalent cations and the binding epitope appears to be located around residues 207-218 in the b1 subunit putative A-domain (Mould et al. 1998).

NCBI AND UNIPROT INFORMATION

NCBI GI #	19743813
NCBI GeneID	3688
NCBI Accession #	NP_002202.2
NCBI GenBank Nucleotide #	NM_002211.4
UniProt Accession #	P05556
NCBI Official Full Name	integrin beta-1 isoform 1A

NCBI Official Synonym Full Names	integrin subunit beta 1
NCBI Official Symbol	ITGB1
NCBI Official Synonym Symbols	CD29; FNRB; MDF2; VLAB; GPIIA; MSK12; VLA-BETA
NCBI Protein Information	integrin beta-1
UniProt Protein Name	Integrin beta-1
UniProt Gene Name	**ITGB1**
UniProt Synonym Gene Names	FNRB; MDF2; MSK12; GPIIA
UniProt Entry Name	ITB1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://stage.aaabiotech.com/monoclonal/cd29-antibody-clone-12g10-flow-cytometry-elisa/50335