

Datasheet: MCA2028F

BATCH NUMBER 1701

Description:	MOUSE ANTI HUMAN CD29:FITC
Specificity:	CD29
Other names:	INTEGRIN BETA 1 CHAIN
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	12G10
Isotype:	IgG1
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species

Human

Species Cross Reactivity

Reacts with: Mink

Does not react with: Rat, Mouse

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml
Immunogen	Purified human beta1 integrin preparation from HT1080 fibrosarcoma cell extract
External Database Links	<p>UniProt: P05556 Related reagents</p> <p>Entrez Gene: 3688 ITGB1 Related reagents</p>
Synonyms	FNRB, MDF2, MSK12
Fusion Partners	Spleen cells from an immunised BALB/c mice were fused with cells of the X63/Ag8.653 mouse myeloma cell line
Specificity	<p>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.</p> <p>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 β1 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).</p>
References	<ol style="list-style-type: none"> Sodek, K.L. <i>et al.</i> (2009) Compact spheroid formation by ovarian cancer cells is associated with contractile behavior and an invasive phenotype. Int J Cancer. 124: 2060-70. Mould, A.P. <i>et al.</i> (1995) Regulation of integrin alpha 5 beta 1 function by anti-integrin antibodies and divalent cations. Biochem Soc Trans. 23 (3): 395S. Mould, A.P. <i>et al.</i> (1995) Identification of a novel anti-integrin monoclonal antibody that recognises a ligand-induced binding site epitope on the beta 1 subunit. FEBS Lett. 363

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Storage Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. This product is photosensitive and should be protected from light.
Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10041 available at:
<https://www.bio-rad-antibodies.com/SDS/MCA2028F>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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