

Anti-CD29 [12G10] Bulk Size Ab00849-23.0-BT

Developed in partnership with Ximbio (www.ximbio.com).

This chimeric rabbit antibody was made using the variable domain sequences of the original Mouse IgG1 format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Rabbit IgG, Kappa

Clone Number: 12G10

Alternative Name(s) of Target: Integrin beta-1; Integrin $\beta 1$ chain; Integrin $\beta 1$; VLA- β chain; Glycoprotein IIA; GPIIA; Fibronectin receptor subunit beta; ITGB1; VLA-4 subunit beta; FNRB; MDF2; MSK12

UniProt Accession Number of Target Protein: P05556

Published Application(s): enhance, therapeutic, WB, ELISA, FC, IHC

Published Species Reactivity: Human

Immunogen: This antibody was raised by immunising BALB/C mice with purified $\beta 1$ integrins from HT-1080 fibrosarcoma cells

Specificity: This antibody recognises a ligand-induced binding site on the βA domain of $\beta 1$ integrin, and thus reacts preferentially with $\alpha 5\beta 1$ integrins in the ligand-activated state. Binding of this antibody alters the position of the $\alpha 1$ helix of $\beta 1$ integrin, and results in further integrin activation.

Application Notes: This antibody reacts with $\beta 1$ integrins in Western blotting (Mould et al, 1995). ELISA analysis has revealed the ability of this antibody to enhance the interaction between $\beta 1$ integrin and its ligand, fibronectin (Mould et al, 1995). Indeed, activation of integrins by this antibody reduced the induction of osteosarcoma growth and inhibition of NF- κB caused by hERG1 knockdown in osteosarcoma cells (Zeng et al, 2016). This antibody has been used to specifically label ligand-bound cell surface $\beta 1$ integrins both in immunohistochemical analysis (Izumi et al, 2015; Chao & Kunz, 2009), including in situ proximity ligation (PLA) analysis (Nevo et al, 2010), and in FACS analysis (Brandt et al, 2009).

Antibody First Published in: Mould et al. Identification of a novel anti-integrin monoclonal antibody that recognises a ligand-induced binding site epitope on the beta 1 subunit. FEBS Lett. 1995 Apr 17;363(1-2):118-22. [PMID:7537221](https://pubmed.ncbi.nlm.nih.gov/7537221/)

Note on publication: Describes the original generation of this antibody, and its characterisation through Western blotting and ELISA experiments.

Product Form

Size: 1 mg Purified antibody in bulk size.

Purification: Protein A affinity purified

Supplied In: PBS only.

Storage Recommendation: Store at 4°C for up to 3 months. Note, this antibody is provided without added preservatives, it is therefore recommended this antibody be handled under sterile conditions. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.