

Datasheet: MCA757G

BATCH NUMBER 1711

Description:	MOUSE ANTI HUMAN CD51/CD61
Specificity:	CD51/CD61
Other names:	VITRONECTIN RECEPTOR
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	23C6
Isotype:	IgG1
Quantity:	0.2 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	▪			1/40 - 1/80
Immunohistology - Frozen (1)	▪			
Immunohistology - Paraffin		▪		
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	
Immunofluorescence	▪			

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

(1)The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.

Target Species	Human
Species Cross Reactivity	Reacts with: Chicken Does not react with: Bovine, Pig, Rabbit 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 - liquid
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
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Osteoclasts from osteoclastomas.
External Database Links	UniProt: P06756 Related reagents P05106 Related reagents Entrez Gene: 3685 ITGAV Related reagents 3690 ITGB3 Related reagents
Synonyms	GP3A, MSK8, VNRA
RRID	AB_321468
Fusion Partners	Spleen cells from immunised mice were fused with cells of the mouse X63.Ag8.653 myeloma cell line.
Specificity	Mouse anti Human CD51/CD61 antibody, clone 23C6 recognizes the intact complex formed between the CD51 and CD61 molecules (alpha V and beta 3 integrins). This complex binds vitronectin at the RGD sequence and can also bind fibrinogen, von Willebrand factor, thrombospondin, fibronectin, osteopontin and collagen. Mouse anti Human CD51/CD61 antibody, clone 23C6 reacts with osteoclasts, placenta, melanoma cell lines and weakly with platelets.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	1. Horton, M.A. <i>et al.</i> (1985) Monoclonal antibodies to osteoclastomas (giant cell bone tumors): definition of osteoclast-specific cellular antigens. Cancer Res. 45 (11 Pt 2): 5663-9. 2. Davies, J. <i>et al.</i> (1989) The osteoclast functional antigen, implicated in the regulation of

bone resorption, is biochemically related to the vitronectin receptor. [J Cell Biol. 109 \(4 Pt 1\): 1817-26.](#)

3. Simpson, A. & Horton, M.A. (1989) Expression of the vitronectin receptor during embryonic development; an immunohistological study of the ontogeny of the osteoclast in the rabbit. [Br J Exp Pathol. 70 \(3\): 257-65.](#)

4. Viertlboeck, B.C, and Göbel, T.W. (2007) Chicken thrombocytes express the CD51/CD61 integrin. [Vet Immunol Immunopathol. 119:137-41.](#)

5. Danks, L. *et al.* (2002) Synovial macrophage-osteoclast differentiation in inflammatory arthritis. [Ann Rheum Dis. 61: 916-21.](#)

6. Knowles, H.J. *et al.* (2010) Hypoxia-inducible factor regulates osteoclast-mediated bone resorption: role of angiopoietin-like 4. [FASEB J. 24: 4648-59.](#)

7. Lau, Y.S. *et al.* (2007) Cellular and humoral mechanisms of osteoclast formation in Ewing's sarcoma [Br J Cancer. 96: 1716-22.](#)

8. Lau, Y.S. *et al.* (2006) Malignant melanoma and bone resorption. [Br J Cancer. 94: 1496-503.](#)

9. Mabileau, G. *et al.* (2009) Interleukin-32 promotes osteoclast differentiation but not osteoclast activation. [PLoS One. 4:e4173.](#)

10. Whyte, L.S. *et al.* (2009) The putative cannabinoid receptor GPR55 affects osteoclast function *in vitro* and bone mass *in vivo*. [Proc Natl Acad Sci U S A. 106: 16511-6.](#)

11. Zhao W *et al.* (2015) The Gametocytes of *Leucocytozoon sabraezesi* Infect Chicken Thrombocytes, Not Other Blood Cells. [PLoS One. 10 \(7\): e0133478.](#)

12. Iseri, V.J. & Klasing, K.C. (2013) Dynamics of the systemic components of the chicken (*Gallus gallus domesticus*) immune system following activation by *Escherichia coli*; implications for the costs of immunity. [Dev Comp Immunol. 40 \(3-4\): 248-57.](#)

13. Knowles, H.J. (2017) Hypoxia-Induced Fibroblast Growth Factor 11 Stimulates Osteoclast-Mediated Resorption of Bone. [Calcif Tissue Int. 100 \(4\): 382-91.](#)

14. Larrouture, C.Q. *et al.* (2021) Loss of mutually protective effects between osteoclasts and chondrocytes in damaged joints drives osteoclast-mediated cartilage degradation via matrix metalloproteinases [bioRxiv. 01 Jan \[Epub ahead of print\].](#)

Storage

Store at +4°C or at -20°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.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA757G>
10040

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight@488 , DyLight@550 , DyLight@650 , DyLight@680 , DyLight@800 , FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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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
'M368923:200529'

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