

Datasheet: MCA757GA

BATCH NUMBER 159435

Description:	MOUSE ANTI HUMAN CD51/CD61
Specificity:	CD51/CD61
Other names:	VITRONECTIN RECEPTOR
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	23C6
Isotype:	lgG1

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			•	

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	Reacts with: Chicken
Reactivity	Does not react with:Bovine, Pig

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** 0.09% Sodium Azide **Stabilisers Carrier Free** Yes Approx. Protein IgG concentration 1.0 mg/ml Concentrations **Immunogen** Osteoclasts from osteoclastomas. **External Database UniProt:** Links P06756 Related reagents P05106 Related reagents **Entrez Gene:** 3685 ITGAV Related reagents 3690 ITGB3 Related reagents **Synonyms** GP3A, MSK8, VNRA **RRID** AB 323841 **Fusion Partners** Spleen cells from immunized 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 10⁶ cells in 100ul.

References

- 1. Horton, M.A. et al. (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. et al. (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. Danks, L. *et al.* (2002) Synovial macrophage-osteoclast differentiation in inflammatory arthritis. Ann Rheum Dis. 61: 916-21.
- 5. Lau, Y.S. *et al.* (2006) Malignant melanoma and bone resorption. <u>Br J Cancer. 94:</u> 1496-503.
- 6. Viertlboeck, B.C, and Göbel, T.W. (2007) Chicken thrombocytes express the CD51/CD61 integrin. Vet Immunol Immunopathol. 119:137-41.
- 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. Mabilleau, G. *et al.* (2009) Interleukin-32 promotes osteoclast differentiation but not osteoclast activation. PLoS One. 4:e4173.
- 9. 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.
- 10. Knowles, H.J. *et al.* (2010) Hypoxia-inducible factor regulates osteoclast-mediated bone resorption: role of angiopoietin-like 4. <u>FASEB J. 24: 4648-59.</u>
- 11. Coxon, F.P. *et al.* (2012) Isolation and purification of rabbit osteoclasts. <u>Methods Mol</u> Biol. 816: 145-58.
- 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. <u>Dev Comp Immunol. 40 (3-4): 248-57.</u>
- 13. Zhao W *et al.* (2015) The Gametocytes of *Leucocytozoon sabrazesi* Infect Chicken Thrombocytes, Not Other Blood Cells. <u>PLoS One. 10 (7): e0133478.</u>
- 14. Knowles, H.J. (2017) Hypoxia-Induced Fibroblast Growth Factor 11 Stimulates Osteoclast-Mediated Resorption of Bone. Calcif Tissue Int. 100 (4): 382-91.
- 15. Larrouture, Q.C. *et al.* (2021) Loss of mutual protection between human osteoclasts and chondrocytes in damaged joints initiates osteoclast-mediated cartilage degradation by MMPs. Sci Rep. 11 (1): 22708.
- 16. Kim, J.S. *et al.* (2021) Randomization to Omega-3 Fatty Acid Supplementation and Endothelial Function in COPD: The COD-Fish Randomized Controlled Trial. <u>Chronic Obstr Pulm Dis.8(1): 41-53.</u>

Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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/MCA757GA 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...) <u>FITC</u>

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)

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 Europe
 Tel: +49 (0) 89 8090 95 21

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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 'M381481:210512'

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