Datasheet: MCA1926A647T

Description:	MOUSE ANTI HUMAN CD166:Alexa Fluor® 647
Specificity:	CD166
Other names:	ALCAM
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	3A6
Isotype:	IgG1
Quantity:	25 TESTS/0.25ml

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 - 1/5

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: Sheep

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 Alexa Fluor® 647 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®647	650	665

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 0.05 mg/ml
Immunogen	Human thymic epithelial cells.
External Database Links	**UniProt:** Q13740 Related reagents **Entrez Gene:** 214 ALCAM Related reagents
Synonyms	MEMD
RRID	AB_1100882
Fusion Partners	Spleen cells from immunized mice were fused with cells of the P3X63 Ag8 myeloma cell line.
Specificity	**Mouse anti Human CD166 antibody, clone 3A6** recognizes the 100 kDa adhesion molecule CD166, also known as ALCAM. CD166 is a member of the Ig superfamily and is expressed on activated T-cells, B cells and other cells including thymic epithelial cells, fibroblasts, keratinocytes and neurons. CD6 has been identified as a receptor for ALCAM (Skonier *et al.* 1996). Mouse anti Human CD166 antibody, clone 3A6 is reported to cross-react with CD166 on ovine tissues and provides a useful tool for the identification and characterization of ovine mesenchymal stem cells in conjunction with CD44 which is expressed by this cell lineage and the hematopoietic cell marker CD45 which is not expressed on mesenchymal stem cells (Sanjurjo-Rodríguez *et al.* 2017).
Flow Cytometry	Use 10µl of the suggested working dilution to label 10^6 cells in 100µl
References	1. Patel, D. D. *et al*. (1997) CD166 Workshop: Tissue distribution and functional analysis of antibodies reactive for CD166, a ligand for CD6. In Leukocyte Typing IV. Kishimoto, T. *et al*. eds Garland publishing Inc. New York p. 461-4. 2. Wang, D. *et al.* (2004) Proteomic profiling of bone marrow mesenchymal stem cells upon transforming growth factor beta1 stimulation. J Biol Chem. 279 (42): 43725-34. 3. Yeh, S.P. *et al.* (2005) Mesenchymal stem cells can be easily isolated from bone marrow of patients with various haematological malignancies but the surface antigens expression may be changed after prolonged *ex vivo* culture. Leukemia. 19: 1505-7. 4. Tondreau, T. *et al.* (2008) Gene expression pattern of functional neuronal cells derived from human bone marrow mesenchymal stromal cells. BMC Genomics. 9:166. 5. Srouji, S. *et al.* (2009) The Schneiderian membrane contains osteoprogenitor cells: *in vivo* and *in vitro* study. Calcif Tissue Int. 84 (2): 138-45.

6. Agha-Hosseini, F. *et al.* (2010) *In vitro* isolation of stem cells derived from human dental pulp. Clin Transplant. 24: E23-8.
7. Bhattacharya, S. *et al.* (2010) Toponome imaging system: in situ protein network mapping in normal and cancerous colon from the same patient reveals more than five-thousand cancer specific protein clusters and their subcellular annotation by using a three symbol code. J Proteome Res. 9: 6112-25.
8. Katsube, Y. *et al.* (2010) Restoration of cellular function of mesenchymal stem cells from a hypophosphatasia patient. Gene Ther. 17 (4): 494-502.
9. Brune, J.C. *et al.* (2011) Mesenchymal stromal cells from primary osteosarcoma are non-malignant and strikingly similar to their bone marrow counterparts. Int J Cancer. 129 (2): 319-30.
10. Green, L.R. *et al.* (2011) Cooperative role for tetraspanins in adhesin-mediated attachment of bacterial species to human epithelial cells. Infect Immun. 79 (6): 2241-9.
11. Ali, H. *et al.* (2015) Multi-Lineage Differentiation of Human Umbilical Cord Wharton's Jelly Mesenchymal Stromal Cells Mediates Changes in the Expression Profile of Stemness Markers. PLoS One. 10 (4): e0122465.
12. Fridriksdottir, A.J. *et al.* (2015) Propagation of oestrogen receptor-positive and oestrogen-responsive normal human breast cells in culture. Nat Commun. 6: 8786.
13. Holmannova, D. *et al.* (2017) Effects of conventional CPB and mini-CPB on neutrophils CD162, CD166 and CD195 expression. Perfusion. 32 (2): 141-50.
14. Prins, H.J. *et al.* (2016) Bone Regeneration Using the Freshly Isolated Autologous Stromal Vascular Fraction of Adipose Tissue in Combination With Calcium Phosphate Ceramics. Stem Cells Transl Med. 5 (10): 1362-1374.
15. Chen, F. *et al.* (2018) Bone morphogenetic protein 7-transduced human dermal-derived fibroblast cells differentiate into osteoblasts and form bone *in vivo*. Connect Tissue Res. 59 (3): 223-232.
16. Juan, C.H. *et al.* (2020) *In Vitro* Differentiation of Human Placenta-Derived Multipotent Cells into Schwann-Like Cells. Biomolecules. 10 (12) Dec 10 [Epub ahead of print].
17. Hidalgo, L. *et al.* (2023) Switchable CAR T cell strategy against osteosarcoma. Cancer Immunol Immunother. 72 (8): 2623-33.

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. This product is photosensitive and should be protected from light.

Guarantee

12 months from date of despatch

Acknowledgements

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Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA1926A647T 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 (MCA928A647)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A)
HUMAN SEROBLOCK (BUF070B)

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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