

Datasheet: MCA1557F

BATCH NUMBER 153572

Description:	MOUSE ANTI HUMAN CD105:FITC
Specificity:	CD105
Other names:	ENDOGLIN
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	SN6
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 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.

Target Species

Human

Species Cross Reactivity

Reacts with: Horse, Cynomolgus monkey, Rhesus Monkey

Based on sequence similarity, is expected to react with: Primate

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 G from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml
Immunogen	Partially purified cell membrane antigens from fresh leukemia cells
External Database Links	<p>UniProt: P17813 Related reagents</p> <p>Entrez Gene: 2022 ENG Related reagents</p>
Synonyms	END
RRID	AB_321988
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse P3/NS1 /1-Ag4-1 myeloma cell line
Specificity	Mouse anti Human CD105 antibody, clone SN6 recognizes the human endoglin, also known as CD105. CD105 is a glycoprotein homodimer of ~95 kDa subunits expressed by endothelial cells, activated monocytes and some leukemia cells.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Hauser, P.V. <i>et al.</i> (2010) Stem cells derived from human amniotic fluid contribute to acute kidney injury recovery. Am J Pathol. 177: 2011-21. 2. Jin, H.J. <i>et al.</i> (2010) GD2 expression is closely associated with neuronal differentiation of human umbilical cord blood-derived mesenchymal stem cells. Cell Mol Life Sci. 67 (11): 1845-58. 3. Nagano, M. <i>et al.</i> (2007) Identification of functional endothelial progenitor cells suitable for the treatment of ischemic tissue using human umbilical cord blood. Blood 110 (1): 151-60. 4. Braun, J. <i>et al.</i> (2010) Evaluation of the osteogenic and chondrogenic differentiation capacities of equine adipose tissue-derived mesenchymal stem cells. Am J Vet Res. 71 (10): 1228-36. 5. Diaz-Romero, J. <i>et al.</i> (2008) Immunophenotypic changes of human articular chondrocytes during monolayer culture reflect bona fide dedifferentiation rather than amplification of progenitor cells. J Cell Physiol. 214: 75-83. 6. Agha-Hosseini, F. <i>et al.</i> (2010) <i>In vitro</i> isolation of stem cells derived from human dental pulp. Clin Transplant. 24: E23-8. 7. Arufe, M.C. <i>et al.</i> (2010) Chondrogenic potential of subpopulations of cells expressing mesenchymal stem cell markers derived from human synovial membranes. J Cell

[Biochem. 111: 834-45.](#)

8. Balmayor, E.R. *et al.* (2011) Synthesis and functionalization of superparamagnetic poly- ϵ -caprolactone microparticles for the selective isolation of subpopulations of human adipose-derived stem cells. [J R Soc Interface 8: 896-908.](#)
9. Benetti, A. *et al.* (2008) Transforming growth factor-beta1 and CD105 promote the migration of hepatocellular carcinoma-derived endothelium. [Cancer Res. 68: 8626-34.](#)
10. Ciccocioppo, R. *et al.* (2011) Autologous bone marrow-derived mesenchymal stromal cells in the treatment of fistulising Crohn's disease. [Gut 60: 788-98.](#)
11. Cox, G. *et al.* (2011) The use of the reamer-irrigator-aspirator to harvest mesenchymal stem cells. [J Bone Joint Surg Br. 93: 517-24.](#)
12. Ferro, F. *et al.* (2010) Biochemical and biophysical analyses of tissue-engineered bone obtained from three-dimensional culture of a subset of bone marrow mesenchymal stem cells. [Tissue Eng Part A 16: 3657-67.](#)
13. Lozanoska-Ochser, B. *et al.* (2008) Expression of CD86 on human islet endothelial cells facilitates T cell adhesion and migration. [J Immunol. 181: 6109-16.](#)
14. Sallustio, F. *et al.* (2010) TLR2 plays a role in the activation of human resident renal stem/progenitor cells. [FASEB J. 24: 514-25.](#)
15. Tso, C. *et al.* (2012) Phenotypic and functional changes in blood monocytes following adherence to endothelium. [PLoS One 7: e37091.](#)
16. Hu, N. *et al.* (2013) Long-term outcome of the repair of 50 mm long median nerve defects in rhesus monkeys with marrow mesenchymal stem cells-containing, chitosan-based tissue engineered nerve grafts. [Biomaterials 34: 100-11.](#)
17. Cho, H.J. *et al.* (2013) Generation of human secondary cardiospheres as a potent cell processing strategy for cell-based cardiac repair. [Biomaterials 34: 651-61.](#)
18. Kang, S.D. *et al.* (2013) Isolation of Functional Human Endothelial Cells from Small Volumes of Umbilical Cord Blood. [Ann Biomed Eng. 41: 2181-92.](#)
19. Mehrkens, A. *et al.* (2013) Non-adherent mesenchymal progenitors from adipose tissue stromal vascular fraction. [Tissue Eng Part A 20: 1081-8.](#)
20. De Schauwer, C. *et al.* (2012) In search for cross-reactivity to immunophenotype equine mesenchymal stromal cells by multicolor flow cytometry. [Cytometry A 81: 312-23.](#)
21. Zhang, J. *et al.* (2016) Bone mesenchymal stem cells differentiate into myofibroblasts in the tumor microenvironment. [Oncol Lett. 12 \(1\): 644-50.](#)
22. Morsing, M. *et al.* (2016) Evidence of two distinct functionally specialized fibroblast lineages in breast stroma. [Breast Cancer Res. 18 \(1\): 108.](#)
23. Williamson, K.A. *et al.* (2015) Restricted differentiation potential of progenitor cell populations obtained from the equine superficial digital flexor tendon (SDFT). [J Orthop Res. 33 \(6\): 849-58.](#)
24. Lützkendorf, J. *et al.* (2017) Resistance for Genotoxic Damage in Mesenchymal Stromal Cells Is Increased by Hypoxia but Not Generally Dependent on p53-Regulated Cell Cycle Arrest. [PLoS One. 12 \(1\): e0169921.](#)
25. Lee, H.J. *et al.* (2017) ICOSL expression in human bone marrow-derived mesenchymal stem cells promotes induction of regulatory T cells. [Sci Rep. 7: 44486.](#)
26. Yi, T. *et al.* (2015) Manufacture of Clinical-Grade Human Clonal Mesenchymal Stem Cell Products from Single Colony Forming Unit-Derived Colonies Based on the Subfractionation Culturing Method. [Tissue Eng Part C Methods. 21 \(12\): 1251-62.](#)
27. Boccardo, S. *et al.* (2016) Engineered mesenchymal cell-based patches as controlled VEGF delivery systems to induce extrinsic angiogenesis. [Acta Biomater. 42: 127-35.](#)

28. Mumaw, J.L. *et al.* (2015) Feline mesenchymal stem cells and supernatant inhibit reactive oxygen species production in cultured feline neutrophils. [Res Vet Sci. 103: 60-9.](#)
29. Bertolo, A. *et al.* (2017) Oxidative status predicts quality in human mesenchymal stem cells. [Stem Cell Res Ther. 8 \(1\): 3.](#)
30. GarikipatiV, N.S. *et al.* (2018) Isolation and characterization of mesenchymal stem cells from human fetus heart. [PLoS One. 13 \(2\): e0192244.](#)
31. Olimpio, R.M.C. *et al.* (2018) Cell viability assessed in a reproducible model of human osteoblasts derived from human adipose-derived stem cells. [PLoS One. 13 \(4\): e0194847.](#)
32. Lotfi, R. *et al.* (2018) ATP promotes immunosuppressive capacities of mesenchymal stromal cells by enhancing the expression of indoleamine dioxygenase. [Immun Inflamm Dis. Oct 10 \[Epub ahead of print\].](#)
33. Santos,V.H.D. *et al.* (2019) Evaluation of alginate hydrogel encapsulated mesenchymal stem cell migration in horses. [Res Vet Sci. 124: 38-45.](#)
34. Noda, S. *et al.* (2019) Effect of cell culture density on dental pulp-derived mesenchymal stem cells with reference to osteogenic differentiation. [Sci Rep. 9 \(1\): 5430.](#)
35. Manini, I. *et al.* (2020) Heterogeneity Matters: Different Regions of Glioblastoma Are Characterized by Distinctive Tumor-Supporting Pathways. [Cancers \(Basel\). 12 \(10\) Oct 13 \[Epub ahead of print\].](#)
36. Cargnoni, A. *et al.* (2020) Amniotic MSCs reduce pulmonary fibrosis by hampering lung B-cell recruitment, retention, and maturation. [Stem Cells Transl Med. 9 \(9\): 1023-35.](#)
37. Huang, Q. *et al.* (2021) Human Umbilical Cord Mesenchymal Stem Cells-Derived Exosomal MicroRNA-18b-3p Inhibits the Occurrence of Preeclampsia by Targeting LEP. [Nanoscale Res Lett. 16 \(1\): 27.](#)
38. Piñeiro-Ramil, M. *et al.* (2020) Immortalizing Mesenchymal Stromal Cells from Aged Donors While Keeping Their Essential Features. [Stem Cells Int. 2020: 5726947.](#)
39. Kim, M. *et al.* (2020) A Small-Sized Population of Human Umbilical Cord Blood-Derived Mesenchymal Stem Cells Shows High Stemness Properties and Therapeutic Benefit. [Stem Cells Int. 2020: 5924983.](#)
40. Niu, C.C. *et al.* (2014) Identification of mesenchymal stem cells and osteogenic factors in bone marrow aspirate and peripheral blood for spinal fusion by flow cytometry and proteomic analysis. [J Orthop Surg Res. 9: 32.](#)
41. Supokawej, A. *et al.* (2013) Cardiogenic and myogenic gene expression in mesenchymal stem cells after 5-azacytidine treatment. [Turk J Haematol. 30 \(2\): 115-21.](#)

Further Reading

1. Burk, J. *et al.* (2013) Equine cellular therapy--from stall to bench to bedside? [Cytometry A 83 \(1\): 103-13.](#)
2. Carrade, D.D. *et al.* (2012) Comparative Analysis of the Immunomodulatory Properties of Equine Adult-Derived Mesenchymal Stem Cells. [Cell Med. 4: 1-11.](#)

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. 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/MCA1557F 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 \(BUF070B\)](#)

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
----------------------------------	---	------------------	---	---------------	---

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M365434:200529'

Printed on 08 Mar 2024