



Datasheet: MCA1557SBUV400

BATCH NUMBER 100006053

Description:	MOUSE ANTI HUMAN CD105:StarBright UltraViolet 400
Specificity:	CD105
Other names:	ENDOGLIN
Format:	StarBright UltraViolet 400
Product Type:	Monoclonal Antibody
Clone:	SN6
Isotype:	IgG1
Quantity:	100 TESTS/0.5ml

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 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: 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 StarBright UltraViolet 400 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
StarBright UltraViolet 400	347	394

Preparation

Purified IgG prepared by affinity chromatography on Protein G from tissue culture

supernatant

Buffer Solution	Phosphate buffered saline
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Preservative Stabilisers	0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin 0.1% Pluronic F68 0.1% PEG 3350 0.05% Tween 20
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Immunogen	Partially purified cell membrane antigens from fresh leukemia cells
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External Database Links	UniProt: P17813 Related reagents Entrez Gene: 2022 ENG Related reagents
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Synonyms	END
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Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse P3/NS1 /1-Ag4-1 myeloma cell line
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Specificity	Mouse anti Human CD105 antibody, clone SN6 recognizes 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.
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Flow Cytometry	Use 5ul of the suggested working dilution to label 10 ⁶ cells in 100ul. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.
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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
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- 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. Olimpico, 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.](#)
42. Kim, S.H. *et al.* (2019) Forkhead box O1 (FOXO1) controls the migratory response of Toll-like receptor (TLR3)-stimulated human mesenchymal stromal cells. [J Biol Chem. 294 \(21\): 8424-37.](#)
43. Rey, F. *et al.* (2019) Adipose-Derived Stem Cells from Fat Tissue of Breast Cancer Microenvironment Present Altered Adipogenic Differentiation Capabilities. [Stem Cells Int. 2019: 1480314.](#)
44. Lotfi, R. *et al.* (2020) Validation of Microbiological Testing of Cellular Medicinal Products Containing Antibiotics. [Transfus Med Hemother. 47 \(2\): 144-51.](#)
45. Serrano, L.J. *et al.* (2021) Cell therapy for factor V deficiency: An approach based on human decidua mesenchymal stem cells. [Biomed Pharmacother. 142: 112059.](#)
46. Piñeiro-Ramil, M. *et al.* (2021) Generation of Mesenchymal Cell Lines Derived from Aged Donors. [Int J Mol Sci. 22 \(19\)Oct 01 \[Epub ahead of print\].](#)
47. Fernandez-Pernas, P. *et al.* (2017) CD105+-mesenchymal stem cells migrate into

- osteoarthritis joint: An animal model. [PLoS One. 12 \(11\): e0188072.](#)
48. Di Paola, A. *et al.* (2021) Eltrombopag in paediatric immune thrombocytopenia: Iron metabolism modulation in mesenchymal stromal cells. [Br J Haematol. Dec 28 \[Epub ahead of print\].](#)
49. Murata, D. *et al.* (2022) Osteochondral regeneration of the femoral medial condyle by using a scaffold-free 3D construct of synovial membrane-derived mesenchymal stem cells in horses. [BMC Vet Res. 18 \(1\): 53.](#)
50. Orikasa, S. *et al.* (2022) Hypoxia-inducible factor 1 α induces osteo/odontoblast differentiation of human dental pulp stem cells via Wnt/ β -catenin transcriptional cofactor BCL9. [Sci Rep. 12 \(1\): 682.](#)
51. Freitag, N. *et al.* (2022) Eutopic endometrial immune profile of infertility-patients with and without endometriosis [J Repro Immunol. 29 Jan: 103489 \[Epub ahead of print\].](#)
52. Watson, L. *et al.* (2020) Administration of Human Non-Diabetic Mesenchymal Stromal Cells to a Murine Model of Diabetic Fracture Repair: A Pilot Study. [Cells. 9 \(6\): 1394.](#)
53. Creamer, D.G. *et al.* (2022) Influence of exposure to microbial ligands, immunosuppressive drugs and chronic kidney disease on endogenous immunomodulatory gene expression in feline adipose-derived mesenchymal stem cells. [J Feline Med Surg. : 1098612X221083074.](#)

Further Reading	<p>1. Burk, J. <i>et al.</i> (2013) Equine cellular therapy--from stall to bench to bedside? Cytometry A 83 (1): 103-13.</p> <p>2. Carrade, D.D. <i>et al.</i> (2012) Comparative Analysis of the Immunomodulatory Properties of Equine Adult-Derived Mesenchymal Stem Cells. Cell Med. 4: 1-11.</p>
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Storage	<p>Store at +4°C. DO NOT FREEZE.</p> <p>This product should be stored undiluted.</p>
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Guarantee	12 months from date of despatch
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Acknowledgements	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts
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Health And Safety Information	<p>Material Safety Datasheet documentation #20471 available at: https://www.bio-rad-antibodies.com/SDS/MCA1557SBUV400</p> <p>20471</p>
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Regulatory	For research purposes only
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Related Products

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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