

Datasheet: MCA1557SBV790

### **BATCH NUMBER 100005478**

Description:	MOUSE ANTI HUMAN CD105:StarBright Violet 790
Specificity:	CD105
Other names:	ENDOGLIN
Format:	StarBright Violet 790
Product Type:	Monoclonal Antibody
Clone:	SN6
Isotype:	lgG1
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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	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.

<b>Species Cross</b>		
Reactivity		

**Target Species** 

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.

further information.

Human

۲	ro	αι	JCT	ь	orm	

Purified IgG conjugated to StarBright Violet 790 - liquid

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)	
	StarBright Violet 790	401	782	

#### Preparation

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

Buffer Solution	Phosphate buffered saline	
Preservative Stabilisers	<ul> <li>0.09% Sodium Azide (NaN<sub>3</sub>)</li> <li>1% Bovine Serum Albumin</li> <li>0.1% Pluronic F68</li> <li>0.1% PEG 3350</li> <li>0.05% Tween 20</li> </ul>	
Immunogen	Partially purified cell membrane antigens from fresh leukemia c	ells
External Database Links	UniProt: P17813 Related reagents  Entrez Gene: 2022 ENG Related reagents	
Synonyms	END	
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cell /1-Ag4-1 myeloma cell line	s of the mouse P3/NS1
Specificity	Mouse anti Human CD105 antibody, clone SN6 recognizes h known as CD105. CD105 is a glycoprotein homodimer of ~95 k endothelial cells, activated monocytes and some leukemia cells	Da subunits expressed by
Flow Cytometry	Use 5ul of the suggested working dilution to label 10 <sup>6</sup> cells in 1 suggest a 5 minutes centrifugation at 6,000g prior to sample ap	•
References	<ol> <li>Hauser, P.V. <i>et al.</i> (2010) Stem cells derived from human amacute kidney injury recovery. Am J Pathol. 177: 2011-21.</li> <li>Jin, H.J. <i>et al.</i> (2010) GD2 expression is closely associated wof human umbilical cord blood-derived mesenchymal stem cells 1845-58.</li> <li>Nagano, M. <i>et al.</i> (2007) Identification of functional endotheling for the treatment of ischemic tissue using human umbilical cord 151-60.</li> <li>Braun, J. <i>et al.</i> (2010) Evaluation of the osteogenic and chord capacities of equine adipose tissue-derived mesenchymal stem (10): 1228-36.</li> <li>Diaz-Romero, J. <i>et al.</i> (2008) Immunophenotypic changes of chondrocytes during monolayer culture reflect bona fide dediffer amplification of progenitor cells. J Cell Physiol. 214: 75-83.</li> <li>Agha-Hosseini, F. <i>et al.</i> (2010) In vitro isolation of stem cells pulp. Clin Transplant. 24: E23-8.</li> <li>Arufe, M.C. <i>et al.</i> (2010) Chondrogenic potential of subpopul mesenchymal stem cell markers derived from human synovial in Biochem. 111: 834-45.</li> </ol>	with neuronal differentiation s. Cell Mol Life Sci. 67 (11): al progenitor cells suitable d blood. Blood 110 (1): adrogenic differentiation a cells. Am J Vet Res. 71 f human articular arentiation rather than derived from human dental ations of cells expressing

- 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. <u>Gut 60: 788-98.</u>
- 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. <u>PLoS One 7: e37091.</u>
- 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. <u>Ann Biomed Eng. 41: 2181-92.</u>
- 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. <u>Oncol Lett. 12 (1): 644-50.</u>
- 22. Morsing, M. *et al.* (2016) Evidence of two distinct functionally specialized fibroblast lineages in breast stroma. <u>Breast Cancer Res. 18 (1): 108.</u>
- 23. Williamson, K.A. *et al.* (2015) Restricted differentiation potential of progenitor cell populations obtained from the equine superficial digital flexor tendon (SDFT). <u>J Orthop</u> 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. <u>PLoS One. 12 (1): e0169921.</u>
- 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. <u>Tissue Eng Part C Methods</u>. 21 (12): 1251-62.
- 27. Boccardo, S. *et al.* (2016) Engineered mesenchymal cell-based patches as controlled VEGF delivery systems to induce extrinsic angiogenesis. <u>Acta Biomater. 42: 127-35.</u>
- 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. <u>PLoS One. 13 (2): e0192244.</u>
- 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. <u>Immun Inflamm Dis. Oct 10 [Epub ahead of print].</u>
- 33. Santos, V.H.D. *et al.* (2019) Evaluation of alginate hydrogel encapsulated mesenchymal stem cell migration in horses. <u>Res Vet Sci. 124: 38-45.</u>
- 34. Noda, S. *et al.* (2019) Effect of cell culture density on dental pulp-derived mesenchymal stem cells with reference to osteogenic differentiation. <u>Sci Rep. 9 (1): 5430.</u>
- 35. Manini, I. *et al.* (2020) Heterogeneity Matters: Different Regions of Glioblastoma Are Characterized by Distinctive Tumor-Supporting Pathways. <u>Cancers (Basel). 12 (10) Oct 13 [Epub ahead of print].</u>
- 36. Cargnoni, A. *et al.* (2020) Amniotic MSCs reduce pulmonary fibrosis by hampering lung B-cell recruitment, retention, and maturation. <u>Stem Cells Transl Med. 9 (9): 1023-35.</u>
- 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. <u>J Orthop Surg Res. 9: 32.</u>
- 41. Supokawej, A. *et al.* (2013) Cardiogenic and myogenic gene expression in mesenchymal stem cells after 5-azacytidine treatment. <u>Turk J Haematol.</u> 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. <u>J Biol Chem. 294</u> (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. <u>Stem Cells Int.</u> 2019: 1480314.
- 44. Lotfi, R. *et al.* (2020) Validation of Microbiological Testing of Cellular Medicinal Products Containing Antibiotics. <u>Transfus Med Hemother. 47 (2): 144-51.</u>
- 45. Serrano, L.J. *et al.* (2021) Cell therapy for factor V deficiency: An approach based on human decidua mesenchymal stem cells. <u>Biomed Pharmacother.</u> 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 1α 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**

- 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. DO NOT FREEZE.

This product should be stored undiluted.

### Guarantee

12 months from date of despatch

### Acknowledgements

This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign

counterparts

## **Health And Safety** Information

Material Safety Datasheet documentation #20471 available at:

https://www.bio-rad-antibodies.com/SDS/MCA1557SBV790

20471

Regulatory

For research purposes only

## Related Products

#### Recommended Useful Reagents

**HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)** 

America

North & South Tel: +1 800 265 7376 Fax: +1 919 878 3751 Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Europe

Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50

Email: antibody\_sales\_us@bio-rad.com

Email: antibody\_sales\_uk@bio-rad.com

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 'M387247:210621'

Printed on 23 Apr 2025

© 2025 Bio-Rad Laboratories Inc | Legal | Imprint