

Datasheet: MCA1557PET

| | |
|----------------------|----------------------------|
| Description: | MOUSE ANTI HUMAN CD105:RPE |
| Specificity: | CD105 |
| Other names: | ENDOGLIN |
| Format: | RPE |
| Product Type: | Monoclonal Antibody |
| Clone: | SN6 |
| Isotype: | IgG1 |
| Quantity: | 25 TESTS |

Product Details

RRID AB_2099029

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.

Product Form Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized

Reconstitution Reconstitute with 0.25 ml distilled water

| Max Ex/Em | Fluorophore | Excitation Max (nm) | Emission Max (nm) |
|-----------|-----------------|---------------------|-------------------|
| | RPE 488nm laser | 496 | 578 |

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

Buffer Solution Phosphate buffered saline

Preservative 0.09% Sodium Azide
Stabilisers 1% Bovine Serum Albumin
5% Sucrose

Immunogen Partially purified cell membrane antigens from fresh leukemia cells

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 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 10⁶ cells in 100ul.

References

1. Haruta, Y. & Seon, B.K. (1986) Distinct human leukemia-associated cell surface glycoprotein GP160 defined by monoclonal antibody SN6. [Proc Natl Acad Sci USA 83 \(20\): 7898-902.](#)
2. Jin, H.J. *et al.* (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. *et al.* (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. *et al.* (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. *et al.* (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. *et al.* (2010) *In vitro* isolation of stem cells derived from human dental pulp. [Clin Transplant. 24: E23-8.](#)
7. Arufe, M.C. *et al.* (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. [Oncology Letters. May 30 \[Epub ahead of print\]](#)
 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.](#)

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. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

| | |
|--------------------------------------|--|
| Guarantee | 12 months from date of reconstitution. |
| Health And Safety Information | Material Safety Datasheet documentation #10075 available at: 10075: https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf |
| Regulatory | For research purposes only |

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

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 |
|----------------------------------|---|------------------|---|---------------|---|

'M342975:190110'

Printed on 04 Jun 2019