

Purified anti-human CD34 Antibody

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|--------------------------|--|
| Catalog# / Size | 343501 / 25 µg 343502 / 100 µg |
| Clone | 581 |
| Regulatory Status | RUO |
| Workshop | V MA27 |
| Other Names | Gp105-120, My10 |
| Isotype | Mouse IgG1, κ |
| Description | CD34, also known as gp105-120, is a type I monomeric sialomucin-like glycoprophosphoprotein with an approximate molecular weight of 105-120 kD. Selectively expressed on the majority of hematopoietic stem/progenitor cells, bone marrow stromal cells, capillary endothelial cells, embryonic fibroblasts, and some nervous tissue, CD34 is a commonly used marker to identify human hematopoietic stem/progenitor cells. According to the differential sensitivity to enzymatic cleavage, four groups of epitopes of CD34 have been described. CD34 mediates cell adhesion and lymphocytes homing through binding to L-selectin and E-selectin ligands. |

Product Details

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| Verified Reactivity | Human |
| Reported Reactivity | Cynomolgus |
| Antibody Type | Monoclonal |
| Host Species | Mouse |
| Formulation | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide. |
| Preparation | The antibody was purified by affinity chromatography. |
| Concentration | 0.5 mg/ml |
| Storage & Handling | The antibody solution should be stored undiluted between 2°C and 8°C. |
| Application | FC - Quality tested CyTOF® - Verified ICC, IHC-P - Reported in the literature, not verified in house |
| Recommended Usage | Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is ≤ 2.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. |
| Application Notes | The 581 antibody recognizes the class III group epitope which is resistant to sialidase/glycolyprotease and chymopapain treatment. Additional reported applications (for the relevant formats) include: immunohistochemical staining of paraffin-embedded tissue sections ⁵ and immunofluorescence ⁶ . |
| Application References | <ol style="list-style-type: none"> Schlossman SF, <i>et al.</i> 1995. <i>Leukocyte Typing V: White Cell Differentiation Antigen</i>. New York: Oxford University Press. Felschow DM, <i>et al.</i> 2001. <i>Blood</i> 97:3768. Rudin CE, <i>et al.</i> 1997. <i>Br. J. Haematol.</i> 97:488. Yoshino N, <i>et al.</i> 2000. <i>Exp. Anim. (Tokyo)</i> 49:97. (FC) Skowasch D, <i>et al.</i> 2003. <i>Cardiovasc Res.</i> 60:684. (IHC) Umland O, <i>et al.</i> 2003. <i>J. Histochem. Cytochem.</i> 51:977. (IF) |
| Product Citations | <ol style="list-style-type: none"> Liu C, <i>et al.</i> 2022. <i>Regen Ther.</i> 21:192. PubMed Wei SC <i>et al.</i> 2017. <i>Cell.</i> 170(6):1120-1133. PubMed Zhou W <i>et al.</i> 2017. <i>Cell stem cell.</i> 21(5):591-603. PubMed |

(PubMed link indicates BioLegend citation)

4. Kato M, *et al.* 2021. PLoS One. 16:e0252116. [PubMed](#)
5. Henrick BM, *et al.* 2021. Cell. . [PubMed](#)
6. Roussel M, *et al.* 2021. Cell Reports Medicine. 2(6):100291. [PubMed](#)
7. Evrard M *et al.* 2018. Immunity. 48(2):364-379. [PubMed](#)
8. Richmond BW, *et al.* 2020. Mucosal Immunol. . [PubMed](#)
9. Ran LJ, *et al.* 2018. Mol Med Rep. 18:723. [PubMed](#)
10. Sander J *et al.* 2017. Immunity. 47(6):1051-1066. [PubMed](#)
11. Crawford LB, *et al.* 2021. J Virol. 95:. [PubMed](#)

RRID AB_1731969 (BioLegend Cat. No. 343501)
 AB_1731898 (BioLegend Cat. No. 343502)

Antigen Details

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|---------------------------|---|
| Structure | 105-120 kD single chain mucin-like glycoprotein |
| Distribution | Hematopoietic stem/progenitor cells, bone marrow stromal cells, endothelial cells, embryonic fibroblasts |
| Function | Cell adhesion |
| Ligand/Receptor | L-selectin, E-selectin |
| Cell Type | Endothelial cells, Fibroblasts, Hematopoietic stem and progenitors |
| Biology Area | Cell Biology, Immunology, Neuroinflammation, Neuroscience, Stem Cells |
| Molecular Family | CD Molecules |
| Antigen References | <ol style="list-style-type: none"> 1. Krause DS, <i>et al.</i> 1996. <i>Blood</i> 87:1. 2. Puri KD, <i>et al.</i> 1995. <i>J. Cell Biol.</i> 131:261. 3. Zola H, <i>et al.</i> 2007. <i>Leukocyte and Stromal Cell Molecules: The CD Markers</i>. John Wiley & Sons Inc, Hoboken New Jersey. |
| Gene ID | 947 |

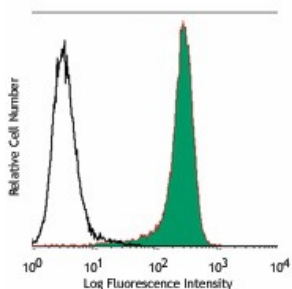
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

Purified anti-human CD34, FITC anti-human CD34, PE anti-human CD34, Alexa Fluor® 647 anti-human CD34, APC anti-human CD34, Pacific Blue™ anti-human CD34, APC/Cyanine7 anti-human CD34, PE/Cyanine7 anti-human CD34, Alexa Fluor® 488 anti-human CD34, PerCP anti-human CD34, PerCP/Cyanine5.5 anti-human CD34, Biotin anti-human CD34, Alexa Fluor® 700 anti-human CD34, Brilliant Violet 510™ anti-human CD34, Purified anti-human CD34 (Maxpar® Ready), PE/Dazzle™ 594 anti-human CD34, APC/Fire™ 750 anti-human CD34, TotalSeq™-A0054 anti-human CD34, TotalSeq™-B0054 anti-human CD34, TotalSeq™-C0054 anti-human CD34, TotalSeq™-D0054 anti-human CD34, Spark Red™ 718 anti-human CD34

Product Data



Human myeloid cell line KG1a stained with purified 581, followed by anti-mouse IgG FITC

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