

Cell-Vive™ GMP Ultra-LEAF™ Purified anti-human CD34 SF Antibody

Catalog# / Size	343547 / 100 µg 343548 / 1 mg
Clone	581
Other Names	Gp105-120, My10
Isotype	Mouse IgG1, κ
Description	<p>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.</p> <p>Cell-Vive™ GMP Ultra-LEAF™ Purified anti-human CD34 SF Antibody was GMP manufactured under serum-free conditions including serum-free hybridoma cell culture, without additional animal or human-derived materials or preservatives. This antibody contains ultra-low levels of endotoxin (<0.01EU/µg of protein), is filtered through a 0.1 µm membrane, and is tested negative for mycoplasma and microbial growths.</p> <p>Cell-Vive™ GMP Ultra-LEAF™ Purified anti-human CD34 SF Antibody is for research and further <i>ex vivo</i> cell processing use only.</p>

Quality Statement	<p>BioLegend Cell-Vive™ GMP Ultra-LEAF™ antibodies are manufactured and tested in accordance with USP Chapter 1043, Ancillary Materials for Cell, Gene and Tissue-Engineered Products and Ph. Eur. Chapter 5.2.12 in a dedicated GMP facility compliant with ISO 13485:2016. Specifications and processes include:</p> <ul style="list-style-type: none"> • Ultra-low endotoxin level (<0.01 EU/mg) • Manufactured under serum-free conditions • Bulks tested negative for mycoplasma and bacterial/fungal growth • Serum-free hybridomas are negative for the presence of murine virus • Batch-to-batch consistency • Vendor qualification • Raw material traceability and documentation • Documented procedures and employee training • Equipment maintenance and monitoring records • Lot-specific certificates of analysis • QA review of released products • Quality audits per ISO 13485:2016
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Product Details

Reactivity	Human
Reported Reactivity	Cynomolgus
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	0.1 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative.
Endotoxin Level	< 0.01 EU/µg of the protein (< 0.001 ng/µg of the protein) as determined by the LAL test.
Preparation	Serum-Free hybridoma derived Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody purified by affinity chromatography.
Concentration	1.0 mg/mL

Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
Application	FC - Quality tested ICC, IHC-P, CyTOF® - Reported in the literature
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	<p>Cell-Vive™ GMP Ultra-LEAF™ Purified anti-human CD34 SF Antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.1 µm filtered) is recommended for highly sensitive assays. The antibody was GMP manufactured under serum-free conditions including serum-free hybridoma cell culture, without additional animal or human-derived materials or preservatives. This antibody is intended for flow cytometry and for research or further <i>ex vivo</i> cell processing use only.</p> <p>The 581 clone 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 sections⁵ and immunofluorescence⁶.</p>
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.</i> (Tokyo) 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)
(PubMed link indicates BioLegend citation)	
RRID	AB_3083324 (BioLegend Cat. No. 343547) AB_3083324 (BioLegend Cat. No. 343548)
Disclaimer	BioLegend Cell-Vive™ GMP Ultra-LEAF™ antibodies are for research use only. Suitable for <i>ex vivo</i> cell processing. Not for injection or diagnostic or therapeutic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

Antigen Details

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
Interaction	Endothelial cells, Fibroblasts, Hematopoietic stem, and progenitors
Ligand/Receptor	L-selectin, E-selectin
Antigen References	<ol style="list-style-type: none"> Krause DS, <i>et al.</i> 1996. <i>Blood</i>. 87:1. Puri KD, <i>et al.</i> 1995. <i>J. Cell Biol.</i> 131:261. 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

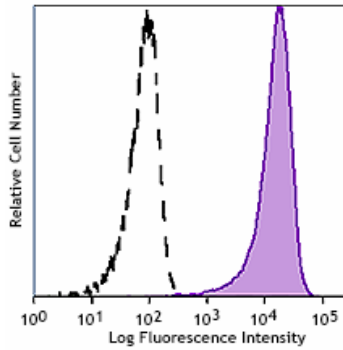
- [Cell Surface Flow Cytometry Staining Protocol](#)

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 Cell-Vive™ GMP Ultra-LEAF™ anti-human CD34 SF antibody (Clone 581, filled histogram) or isotype control (Clone MOPC-21, open histogram) followed by FITC anti-mouse IgG stain.

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