

## Brilliant Violet 421™ anti-human CD34 Antibody

<b>Catalog# / Size</b>	343609 / 25 tests 343610 / 100 tests
<b>Clone</b>	561
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	Gp105-120, My10, Mucosialin
<b>Isotype</b>	Mouse IgG2a, κ

**Description** CD34, also known as gp105-120, is a type I monomeric sialomucin-like glyco-phosphoprotein with an approximate molecular weight of 105-120 kD. It is 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 for identifying human hematopoietic stem/progenitor cells. Based on different sensitivities, 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

---

<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	Cynomolgus, Rhesus
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	<p>Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a>. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.</p> <p>Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd.</p> <p><a href="#">Learn more about Brilliant Violet™.</a></p> <p>This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.</p>
<b>Excitation Laser</b>	Violet Laser (405 nm)
<b>Application Notes</b>	The 561 antibody recognizes a class III group epitope, which is resistant to sialidase/glycolyprotease and chymopapain treatment.
<b>Application References</b>	<ol style="list-style-type: none"> <li>1. Croockewit AJ, <i>et al.</i> 1998. <i>Scand. J. Immunol.</i> 47:82.</li> <li>2. Rosenzweig M, <i>et al.</i> 2001. <i>J. Med. Primatol.</i> 30:36.</li> </ol>
<b>(PubMed link indicates</b>	

## BioLegend citation)

### Product Citations

1. Rosendahl Huber A, *et al.* 2022. STAR Protoc. 3:101361. [PubMed](#)
2. Brandsma AM, *et al.* 2021. Blood Cancer Discov. 2:484. [PubMed](#)
3. Yuzuriha A, *et al.* 2021. Methods Mol Biol. 2454:411. [PubMed](#)
4. de Kanter JK, *et al.* 2021. Cell Stem Cell. 28:1726. [PubMed](#)
5. Brandsma AM, *et al.* 2021. Cancer Discov. . [PubMed](#)
6. Vasu S, *et al.* 2016. Blood. 127: 2879 - 2889. [PubMed](#)
7. Lu YC, *et al.* 2018. Cell Rep. 25:2083. [PubMed](#)
8. Tong J, *et al.* 2021. Cell Stem Cell. 28(3):502-513.e6. [PubMed](#)
9. Osorio FG *et al.* 2018. Cell reports. 25(9):2308-2316 . [PubMed](#)
10. Nafria M, *et al.* 2020. Cell Rep. 31:107691. [PubMed](#)
11. Alhaj Hussien K, *et al.* 2017. Immunity. 47:680. [PubMed](#)
12. Evans WS, *et al.* 2020. Exp Physiol. 105:1408. [PubMed](#)
13. Meng YM, *et al.* 2021. Nat Commun. 12:6011. [PubMed](#)
14. Rabold K, *et al.* 2022. Nat Commun. 13:6149. [PubMed](#)
15. Schielke L, *et al.* 2022. Front Immunol. 13:916701. [PubMed](#)
16. Nafria M, *et al.* 2020. STAR Protoc. 1:100130. [PubMed](#)
17. Hasaart KAL, *et al.* 2022. iScience. 25:103736. [PubMed](#)
18. Seo GY *et al.* 2018. Cell host & microbe. 24(2):249-260 . [PubMed](#)
19. Crippa S, *et al.* 2019. J Clin Invest. 129:1566. [PubMed](#)
20. Ainsworth RI, *et al.* 2022. Nat Commun. 13:6221. [PubMed](#)
21. Ward D, *et al.* 2016. Haematologica. 101: 286 - 296. [PubMed](#)
22. Serr I, *et al.* 2016. Nat Commun. 7:10991. [PubMed](#)
23. Dinh HQ, *et al.* 2020. Immunity. 53(2):319-334.e6. [PubMed](#)

### RRID

AB\_11147951 (BioLegend Cat. No. 343609)  
AB\_2561358 (BioLegend Cat. No. 343610)

## Antigen Details

---

<b>Structure</b>	105-120 kD single chain mucin-like glycoprotein
<b>Distribution</b>	Hematopoietic stem/progenitor cells, bone marrow stromal cells, endothelial cells, embryonic fibroblasts
<b>Function</b>	Cell adhesion
<b>Ligand/Receptor</b>	L-selectin, E-selectin
<b>Cell Type</b>	Endothelial cells, Fibroblasts, Hematopoietic stem and progenitors
<b>Biology Area</b>	Cell Biology, Immunology, Neuroinflammation, Neuroscience, Stem Cells
<b>Molecular Family</b>	CD Molecules
<b>Gene ID</b>	<a href="#">947</a>

## Related Protocols

---

[Cell Surface Flow Cytometry Staining Protocol](#)

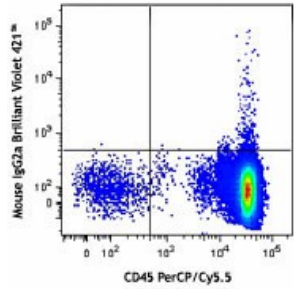
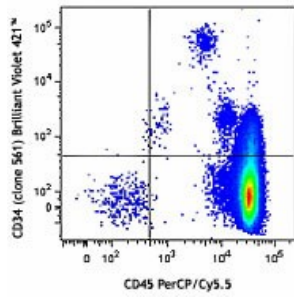
## Other Formats

---

Purified anti-human CD34, FITC anti-human CD34, PE anti-human CD34, APC anti-human CD34, Brilliant Violet 421™ anti-human CD34, PerCP/Cyanine5.5 anti-human CD34, APC/Cyanine7 anti-human CD34, PE/Cyanine7 anti-human CD34, Alexa Fluor® 647 anti-human CD34, Brilliant Violet 650™ anti-human CD34, Brilliant Violet 785™ anti-human CD34, Alexa Fluor® 488 anti-human CD34, Alexa Fluor® 700 anti-human CD34

## Product Data

---



Human peripheral blood mononuclear cells were stained with CD14 PE, CD45 PerCP/Cy5.5, and CD34 (clone 561) Brilliant Violet 421™ (top) or mouse IgG2a Brilliant Violet 421™ isotype control (bottom). Dot plots are from gated on CD14-negative cell population.

For research use only. Not for diagnostic 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.

\*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, [www.biolegend.com/ordering#license](http://www.biolegend.com/ordering#license)). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 [www.biolegend.com](http://www.biolegend.com)  
 Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587