BioLegend
The path to legendary discovery™

Product Data Sheet

Alexa Fluor® 488 anti-human CD34

Catalog # / Size: 343517 / 25 tests
343518 / 100 tests

Clone: 581

Isotype: Mouse IgG1, κ

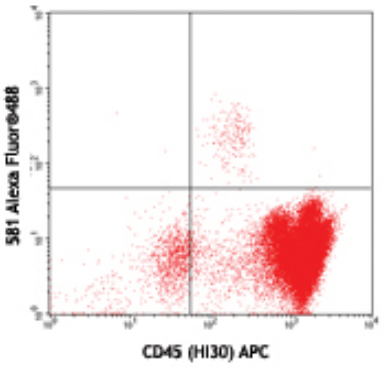
Workshop Number: V MA27

Reactivity: Human, **Cross-Reactivity:** Cynomolgus

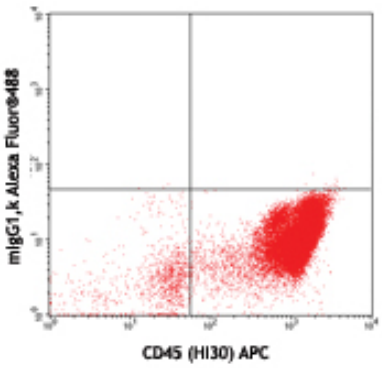
Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 488 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 488.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



Human peripheral blood leukocytes stained with CD45 (HI30) APC and 581 Alexa Fluor® 488 (top) or mIgG1, κ Alexa Fluor® 488 isotype control (bottom). Data was generated by gating on live CD14 negative lymphocyte population.



Applications:

Applications: FC - *Quality tested*
IF, IHC - *Reported in the literature*

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤ 5 µl per million cells or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm.
** Alexa Fluor® is a registered trademark of Molecular Probes, Inc. Alexa Fluor® dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.

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:
1. Schlossman SF, *et al.* 1995. *Leukocyte Typing V:White Cell Differentiation Antigen. New York:Oxford University Press.*
2. Felschow DM, *et al.* 2001. *Blood* 97:3768.
3. Rudin CE, *et al.* 1997. *Br. J. Haematol.* 97:488.
4. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
5. Skowasch D, *et al.* 2003. *Cardiovasc Res.* 60:684. (IHC)
6. Umland O, *et al.* 2003. *J. Histochem. Cytochem.* 51:977. (IF)

Description: CD34, also known as gp105-120, is a type I monomeric sialomucin-like glycophosphoprotein 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.

Antigen References:
1. Krause DS, *et al.* 1996. *Blood* 87:1.
2. Puri KD, *et al.* 1995. *J. Cell Biol.* 131:261.
3. Zola H, *et al.* 2007. *Leukocyte and Stromal Cell Molecules:The CD Markers*. John Wiley & Sons Inc, Hoboken New Jersey.

Related Products:

Product	Clone	Application
Alexa Fluor® 488 Mouse IgG1, κ Isotype Ctrl (FC)	MOPC-21	FC, IF
Cell Staining Buffer		FC, ICC, ICFC
RBC Lysis Buffer (10X)		FC, ICFC

BioLegend Inc., 9727 Pacific Heights Blvd, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587

BioLegend Inc., 9727 Pacific Heights Blvd, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587