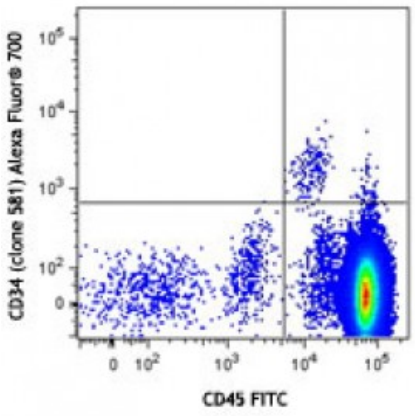
SONY

Product Data Sheet

Alexa Fluor® 700 anti-human CD34

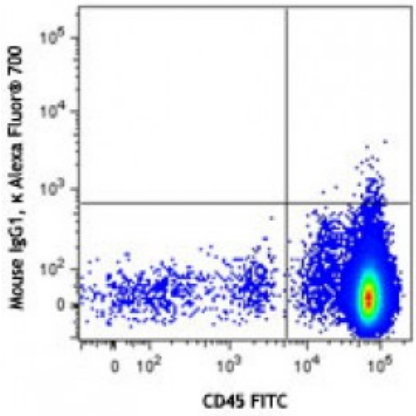
Catalog # / Size:	2317625 / 25 tests 2317630 / 100 tests
Clone:	581
Isotype:	Mouse IgG1, κ
Reactivity:	Human
Preparation:	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 700 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
Workshop Number:	V MA27
Concentration:	Lot-specific



Human peripheral blood mononuclear cells were stained with CD14 PE, CD45 FITC, and CD34 (clone 581) Alexa Fluor® 700 (top) or mouse IgG1, κ Alexa Fluor® 700 isotype control (bottom). Data shown was gated on CD14-negative cell population.

Applications:

Applications:	Flow Cytometry
Recommended Usage:	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. The suggested use of this reagent is 5 microL per million cells or 5 microL per 100 microL of whole blood. It is highly recommended that the reagent be titrated for optimal performance for each application. * Alexa Fluor® 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor® 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.
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 sections5 and immunofluorescence[6].



Application References:

1. Schlossman SF, *et al.* 1995. *Leukocyte Typing V:White Cell Differentiation Antigen. New York:Oxford University Press.*

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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)
7. Lee J, *et al.* 2015. *J Exp Med.* 212:385. PubMed
8. Breton G, *et al.* 2015. *J Exp Med.* 212:401. PubMed

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 In