Human CD34 Alexa Fluor® 488-conjugated Antibody

Recombinant Monoclonal Rabbit IgG Clone # 2936H
Catalog Number: FAB11441G
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD34 in direct ELISA.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2936H
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese Hamster Ovary cell line, CHO-derived human CD34 Ser32-Thr290 Accession # P28906
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Flow Cytometry	Titration recommended for optimal concentration with starting range of 0.1-1 µg/1 million cells. Sample used for this experiment was Human PBMC lymphocytes.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** • 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

CD34 is a 115 kDa glycosylated type I transmembrane protein; it was discovered as a hematopoietic cell-surface antigen (1, 2, 3). Human CD33 cDNA encodes a 385 amino acid (aa) precursor that contains a 31 aa signal sequence, a 259 aa extracellular domain (ECD), a 21 aa transmembrane sequence, and a 74 aa cytoplasmic domain. Within the ECD, human CD34 shares 55% and 52% aa sequence identity with mouse and rat CD34, respectively. This single-pass sialomucin-like transmembrane protein is heavily glycosylated and phosphorylated by Protein Kinase C (PKC) (4, 5). CD34 is found on multipotent precursors, bone marrow stromal cells, embryonic fibroblasts, vascular endothelia, as well as some populations of mesenchymal stem cells, and tumor cell lines, and it is a common marker for diverse progenitors (6). CD34 is involved in the adhesion of stem cells to the bone marrow extracellular matrix or to stromal cells.

References:

1. Civin C.I. *et al.* (1984) J. Immunol. **133**:157.
2. Katz F. *et al.* (1985) Leuk. Res. **9**:191.
3. Andrews R.G. *et al.* (1986) Blood **67**:842.
4. Young P.E. *et al.* (1995) Blood **85**:96.
5. Krause D.S. *et al.* (1996) Blood **87**:1.
6. Sidney L.E. *et al.* (2014) Stem Cells **32**:1380.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.

Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 **Canada** | TEL: 855.668.8722 **Europe** | **Middle East** | **Africa** TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475