

Anti-CD34 Antibody

0108-2



Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Zebrafish
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 41 kDa

Description: CD34 is a transmembrane phosphoglycoprotein protein encoded by the CD34 gene in humans, mice, rats and other species. The CD34 protein is a member of a family of single-pass transmembrane sialomucin proteins that show expression on early haematopoietic and vascular-associated progenitor cells. However, little is known about its exact function. CD34 is also an important adhesion molecule and is required for T cells to enter lymph nodes. It is expressed on lymph node endothelia, whereas the L-selectin to which it binds is on the T cell. Conversely, under other circumstances CD34 has been shown to act as molecular "Teflon" and block mast cell, eosinophil and dendritic cell precursor adhesion, and to facilitate opening of vascular lumina. Finally, recent data suggest CD34 may also play a more selective role in chemokine-dependent migration of eosinophils and dendritic cell precursors. Regardless of its mode of action, under all circumstances CD34, and its relatives podocalyxin and endoglycan, facilitates cell migration.

Immunogen: Synthetic peptide within human CD34 aa 336-385.

Positive control: Human brain, mouse brain, mouse testis, Mouse thymus, mouse spleen, Jurkat, TF-1, F9, human embryonic stem cell, human tonsil tissue

Subcellular location: Cell membrane

Database links: SwissProt: P28906 Human | Q64314 Mouse

Recommended Dilutions:

WB	1:500-1:1,000
IF-Cell	1:100
IHC-P	1:3,000

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

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Orders:0086-571-88062880

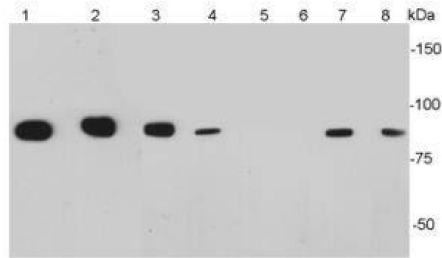
Technical:0086-571-89986345

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Images

Fig1: Western blot analysis of CD34 on different cell lysates using anti-CD34 antibody at 1/1,000 dilution.



Positive control:

Lane 1: Human brain lysate
 Lane 2: Mouse brain lysate
 Lane 3: Mouse testis lysate
 Lane 4: Mouse thymus lysate
 Lane 5: Mouse spleen lysate
 Lane 6: Jurkat lysate
 Lane 7: TF-1 lysate
 Lane 8: F9 lysate

Predicted band size: 41 kDa
 Observed band size: 90 kDa

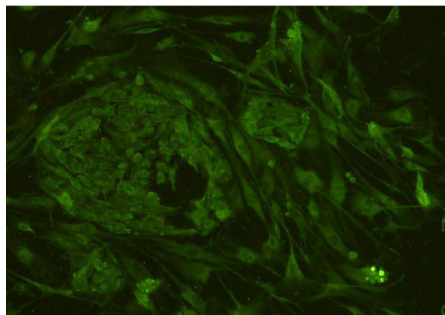


Fig2: ICC staining of CD34 in hES cells (green). Formalin fixed cells were permeabilized with 0.25% Triton X100/PBS for 10 minutes at room temperature and blocked with 10% negative goat serum for 15 minutes at room temperature. Cells were probed with the primary antibody (0108-2, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 conjugate-Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution.

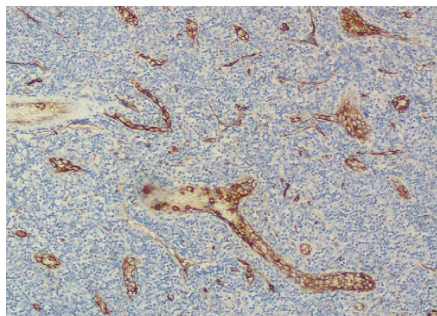


Fig3: Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-CD34 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (0108-2, 1/200) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Freund D., Wiebe G.J., Ehninger G., Corbeil D.; "Sequence analysis of the human CD34 antigen."; Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases.
2. The MGC Project Team;"The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC)."; Genome Res. 14:2121-2127(2004).
3. Sutherland D.R., Watt S.M., Dowden G., Karhi K., Baker M.A., Greaves M.F., Smart J.E.;"Structural and partial amino acid sequence analysis of the human hemopoietic progenitor cell antigen CD34.";Leukemia 2:793-803(1988).

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