CD34

Cat#: 0108-2 **Quantity: 100ul**

Product Type	Rabbit Polyclonal IgG, primary antibodies	**Form**	Liquid
Species Cross-reactivity	Mouse, Human, Rat	**Molecular Wt.**	90 kDa
Tested Applications	WB, IHC, FC, ICC	**Database links**	SwissProt P28906
Positive control	Human brain, mouse brain, mouse testis, Mouse thymus, mouse spleen, Jurkat, TF-1, F9, human embryonic stem cell, human tonsil tissue	**Cellular Localization**	Cell membrane

Description: CD34 is a heavily glycosylated type I transmembrane molecule, that can be phoshorylated by a variety of kinases including Protein kinase C and Tyrosine kinases. CD34 antigen is expressed on small vessel endothelial cells and tumors of epithelial origin. CD34 is possibly an adhesion molecule with a putative role in early hematopoiesis by mediating the attachment of stem cells to the bone marrow extracellular matrix or directly to stromal cells. It could act as a scaffold for the attachment of lineage specific glycans, allowing stem cells to bind to lectins expressed by stromal cells or other marrow components. So CD34 is considered to be ideal marker for identifying and quantifying hematopoietic progenitor stem cells. With interaction with CrkL, CD34 becomes a substrate for PKC and CD34 surface expression is associated with activation of PKC.

Specificity/Source: This antibody is produced by immunizing rabbits with a synthetic peptide (KLH-coupled) corresponding to near C-terminal residues of CD34.

Recommended Dilutions:

WB: 1:500-1:1,000 ICC: 1:100

IHC: 1:3,000 FC: 1:50-1:100

Storage Buffer: 1*TBS (pH7.4), 1%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

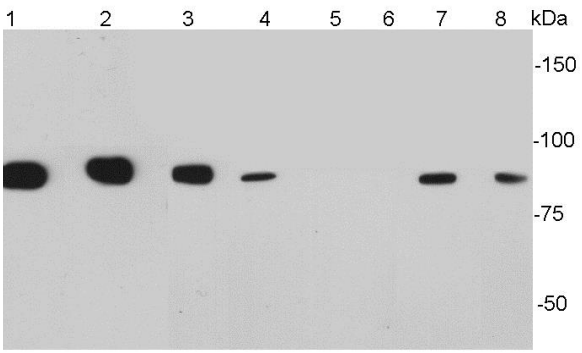

Fig1: Western blot analysis of CD34 on different cell lysates using anti-CD34antibody at 1/1000 dilution.
Positive control:
Lane 1: Human brain Lane2: Mouse brain
Lane3: Mouse testis Lane 4: Mouse thymus
Lane5: Mouse spleen Lane6:Jurkat
Lane7: TF-1 Lane8: F9

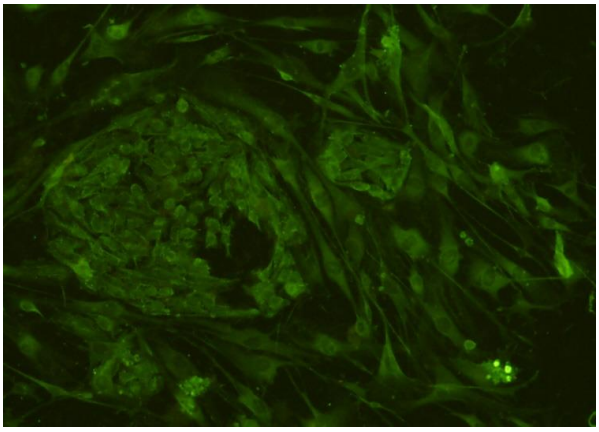

Fig2: ICC staining CD34 in hES cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

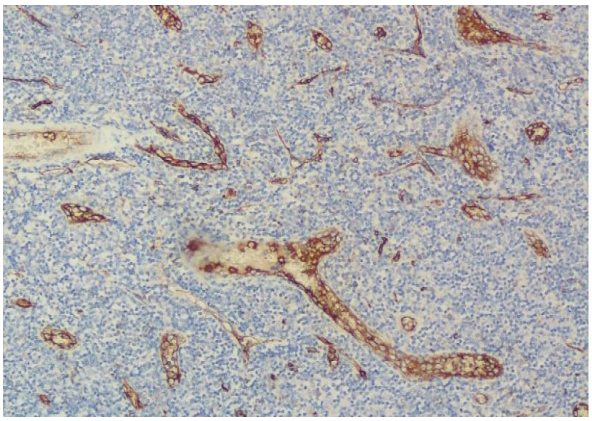

Fig3: Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti- CD34 rabbit polyclonal antibody.

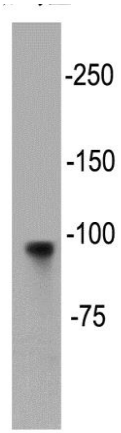

Fig4: Western blot analysis of CD34 on zebra fish tissue lysates using anti-CD34 antibody at 1/2000 dilution.

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).