



Product Specification Sheet

**Human CD34 antibody**

Cat# HCD34-A

Rabbit Anti-Human CD34 antibody

SIZE: 100 µg

Hematopoietic progenitor cell antigen or CD34 is a transmembrane phosphoglycoprotein. CD34 was first described on hematopoietic stem cells as a cell surface glycoprotein which functions as a cell-cell adhesion factor. It may also mediate the attachment of hematopoietic stem cells to bone marrow extracellular matrix or directly to stromal cells. Clinically, it is associated with the enrichment of hematopoietic stem cells for bone marrow transplants. CD34+ cells are normally found in the umbilical cord and bone marrow as hematopoietic cells or in mesenchymal stem cells, endothelial progenitor cells, or endothelial cells of blood vessels.

**Source of Antigen or Antibodies**

**Uniprot:** P28906

**Host:** Rabbit

**Clonality:** Polyclonal

**Purification:** Ammonium sulfate followed by peptide affinity chromatography

**Immunogen:** Synthetic peptide derived from the Extracellular region of Human CD34

**Species reactivity:** Human

**Cross reactivity:** The peptide used as an immunogen exhibits 93% homology with Non-Human Primates. 86% with Dog, Mouse, and Rat. Reactivity has only been confirmed in Human samples

**Subcellular Location:** Plasma membrane

**Alternative names:** Hematopoietic progenitor cell antigen CD34

**Recommended Secondary Antibody:** Goat anti-Rabbit IgG-HRP (ADI cat#20320)

**Form & Storage of Antibodies**

**Affinity pure IgG Solution**

Concentration: 0.5 mg/ml      Volume: 200 µl

Supplied in PBS, pH 7.4 + 0.1% BSA

The antibody can be made available carrier free or conjugated to HRP, Biotin, or FITC on request

**Lyophilized powder**

Lyophilized from a formulation containing PBS, pH 7.4+3% Trehalose. Reconstitute powder in 200 µl PBS, 0.05% tween-20, and 0.1% BSA and a preservative to 0.5 mg/ml.

**Storage:**

**Short-term:** 4°C for 1-3 months

**Long-term:** at -20°C or below in suitable aliquots after reconstitution for 1 year. Do not expose to multiple freeze/thaw cycles or store working, diluted solutions. Glycerol may be added to a final concentration of 50% and antibodies can be stored un-aliquoted at -20°C.

**Recommended Usage**

**Immunohistochemistry:** 1-10 µg/ml. QC tested using 10 mM sodium citrate pH 6, antigen retrieval buffer. The antibody may work better with no retrieval or different retrieval solutions.

**Immunocytochemistry:** 1-10 µg/ml

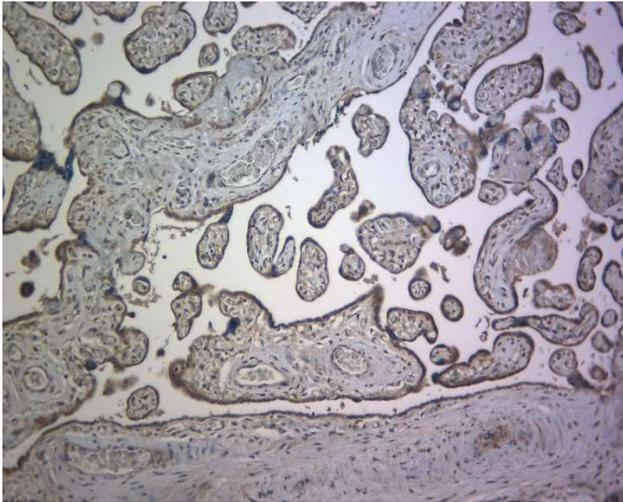
**Flow Cytometry:** Typically, 0.1-0.5 µg/10<sup>6</sup> cells. (Not validated for use by ADI)

The above concentrations are a *suggestion*, user's must optimize their assay based on their own conditions. The antibody may work in other applications such as Western blotting. These methods have not been tested by ADI.

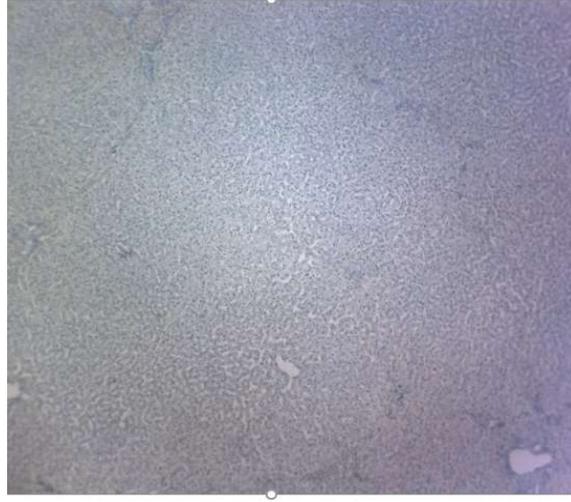
*\*This product is for In vitro research use only.*

**Related materials available from ADI**

Catalog#	Description
CD45-T1-100	Mouse Monoclonal Anti-Human CD45
FITC/CD19 PE/CD3 PE-Cy5	
CD45-T2-100	Mouse Monoclonal Anti-Human CD45 FITC/CD4
CD45UL-100	Mouse Monoclonal Anti-Human CD45
MCD045-F	Rat Monoclonal Anti-Mouse CD45, FITC (Clone IBL-5/25) (rat IgG1)
MCD045-M	Rat Monoclonal Anti-Mouse CD45, Purified (Clone IBL-5/25) (rat IgG1)
MCD045-PE	Rat Monoclonal Anti-Mouse CD45, PE (Clone IBL-5/25) (rat IgG1)
HCD34-A	190916IA



**Human Placenta (high expression)**



**Human Liver (low expression)**

**Immunohistochemistry:** FFPE Human Placenta and Liver slides were heated for 20 minutes at 60°C then deparaffinized. Antigen retrieval was performed for 10 minutes at 95°C in a microwave using 10 mM pH 6, sodium citrate buffer. The slide was then cooled for 20 minutes at room temperature before being blocked for 30 minutes with 2.5% normal goat serum. **HCD34-A** was diluted to 5 µg/ml in TBST+0.1% BSA and incubated overnight at 4°C. The slides were then washed twice and incubated with 3% hydrogen peroxide for 10 minutes to quench endogenous peroxidase. The slide was washed then incubated with Goat anti-Rabbit IgG HRP polymer detection reagent for 30 minutes at room temperature. The slide was washed twice, incubated with DAB for 3 minutes, washed with distilled water, then counterstained for 1 minute with Gil's II Hematoxylin before being cover-slipped.