R&D SYSTEMS
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Human CD34 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7227

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CD34 in direct ELISAs. In direct ELISAs, less than 1% cross-reactivity with recombinant mouse CD34 and recombinant rat CD34 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human CD34 Ser32-Thr290 Accession # P28906
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

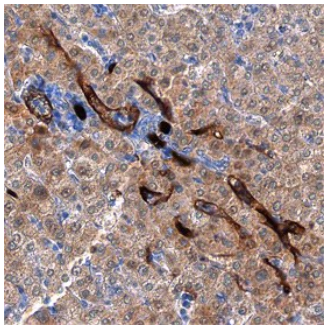
APPLICATIONS

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.*

	Recommended Concentration	Sample
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



CD34 in Human Liver. CD34 was detected in immersion fixed paraffin-embedded sections of human liver using Sheep Anti-Human CD34 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7227) at 1.7 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to endothelial cells in vasculature. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

CD34 is a 105-115 kDa member of the CD34/podocalyxin family of molecules. It is a sialomucin type glycoprotein, and presents carbohydrate to selectins during cell migration. CD34 is found on mast cells, eosinophils, vascular endothelial cells, stem cells and renal mesangial cells. Mature human CD34 is a 354 amino acid (aa) type I transmembrane protein (aa 32-385). It contains a 259 aa extracellular region (aa 35-287) with utilized N- and O-linked glycosylation sites, and a 74 aa cytoplasmic domain that may undergo Tyr phosphorylation. There is one splice variant that shows a four aa substitution for aa 325-385. Human CD34 can undergo membrane cleavage by bacterial proteases to generate 30-40 kDa soluble fragments. And notably, desialylated CD34 shows a 40 kDa increase in MW (to 150 kDa) when run in SDS-PAGE. Over aa 32-290, human CD34 shares 56% aa identity with mouse CD34.

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