

DESCRIPTION

Species Reactivity	Mouse/Rat
Specificity	Detects mouse and rat CD34 in direct ELISAs and Western blots. In direct ELISAs, less than 3% cross-reactivity with recombinant porcine CD34 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse CD34 Thr35-Thr287 Accession # Q64314
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
Western Blot	1 µg/mL	See Below
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

DATA

Western Blot

Detection of Mouse and Rat CD34 by Western Blot.
Western blot shows lysates of mouse brain (cortex) tissue and rat testis tissue. PVDF Membrane was probed with 1 µg/mL of Mouse CD34 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6518) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for CD34 at approximately 85-90 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Flow Cytometry

Detection of CD34 in bEnd.3 Mouse Cell Line by Flow Cytometry. bEnd.3 mouse endothelioma cell line was stained with Mouse CD34 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6518, filled histogram) or control antibody (Catalog # 5-001-A, open histogram), followed by NorthernLights™ 637-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # NL011).

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. <ul style="list-style-type: none"> ● 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

Mouse and rat CD34 is a 80-100 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, CD34⁺ stem cells and renal mesangial cells. Mature mouse CD34 is a 348 amino acid (aa) type I transmembrane protein (aa 35-382). It contains a 253 aa extracellular region (aa 35-287), and a 74 aa cytoplasmic domain that undergoes Tyr phosphorylation. Mouse and rat CD34 also is likely to undergo membrane cleavage that will generate a 54 kDa soluble form. Over aa 35-287, mouse CD34 shares 57% and 82% aa identity with human and rat Cd34, respectively.