

**AM32448PU-N****Monoclonal Antibody to CD34 - Azide Free**

<b>Alternate names:</b>	Hematopoietic progenitor cell antigen CD34, Hematopoietic progenitor cell marker
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	1.0 mg/ml
<b>Background:</b>	CD34 is a type I membrane protein with an apparent MW of approximately 115 kDa. It is a putative adhesion molecule with a role in early hematopoiesis by mediating the attachment of stem cells to the bone marrow extracellular matrix or directly to stromal cells. CD34 is expressed specifically on immature normal human marrow cells, including hematopoietic progenitor cells (2). It is thought to 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.
<b>Host / Isotype:</b>	Mouse / IgG2a
<b>Recommended Isotype Controls:</b>	AM03096PU-N
<b>Clone:</b>	EQ-8D11-C1
<b>Immunogen:</b>	Genetic immunisation with cDNA encoding the extracellular domain of Ovine CD34 <b>Remarks:</b> Selection: Based on recognition of the complete native protein expressed on transfected mammalian cells
<b>Format:</b>	<b>State:</b> Liquid purified Ig fraction <b>Purification:</b> Affinity Chromatography on Protein G <b>Buffer System:</b> PBS, pH 7.2 <b>Preservatives:</b> None
<b>Applications:</b>	<b>Flow Cytometry:</b> 1.2 µg/10 <sup>6</sup> cells. <b>Immunofluorescence:</b> 1 µg/10 <sup>6</sup> cells. <b>Cell based ELISA</b> with intact, transiently transfected cells: 1/200-1/400. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	This antibody recognizes Ovine CD34. Other species not tested. Cellular Localization: Membrane.
<b>Storage:</b>	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
<b>Product Citations:</b>	<b>Originator or purchased from resellers:</b> 1. Harbuzariu A, Kim J, Meyer EM, Donnenberg AD, Tillman BW. CD34 affinity pheresis attenuates a surge among circulating progenitor cells following vascular injury. <i>J Vasc Surg.</i> 2014 Jun;59(6):1686-94. doi: 10.1016/j.jvs.2013.05.043. Epub 2013 Jul 19. PubMed PMID: 23876509. 2. Porada CD, Harrison-Findik DD, Sanada C, Valiente V, Thain D, Simmons PJ, et al. Development and characterization of a novel CD34 monoclonal antibody that identifies sheep hematopoietic stem/progenitor cells. <i>Exp Hematol.</i> 2008

Dec;36(12):1739-49. doi: 10.1016/j.exphem.2008.09.003. PubMed PMID: 19007686.

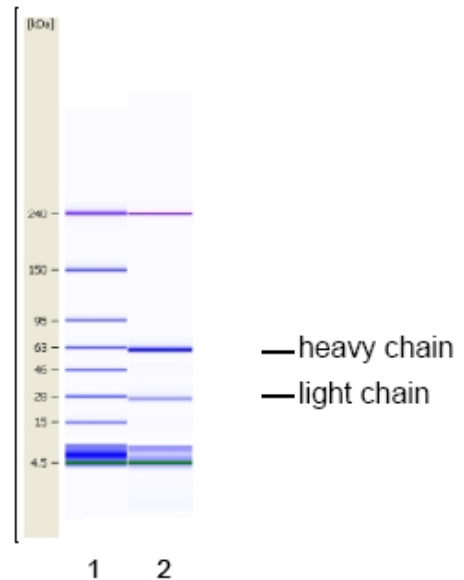
**General Readings:**

1. Shaw, SWS et al 2011: Sheep amniotic fluid derived CD34+ stem cells could engraft and restore the hematopoietic system of NSG mice. ISSCR 9th annual meeting, Poster board #2416
2. Civin CI, Strauss LC, Brovall C, Fackler MJ, Schwartz JF, Shaper JH. Antigenic analysis of hematopoiesis. III. A hematopoietic progenitor cell surface antigen defined by a monoclonal antibody raised against KG-1a cells. J Immunol. 1984 Jul;133(1):157-65. PubMed PMID: 6586833.

**Pictures:**

**CGE analysis of**

**EQ-8D11-C1:** AM32448PU-N CD34 antibody was purified by Protein G Affinity Chromatography from cell culture supernatants and verified by CGE. CGE analysis of purified EQ-8D11-C1 monoclonal antibody. Lane 1: molecular weight marker, Lane 2: 2 µg of purified EQ-8D11-C1 antibody. Proteins were separated by CGE (capillary gel electrophoresis, Agilent 2100 Bioanalyzer). Internal control bands (240 kDa / 7 kDa / 4,5 kDa)



FACS analysis of BOSC23 cells using EQ-8D11-C1 Cat.No AM32448PU-N. BOSC23 cells were transiently transfected with an expression vector encoding either CD34 (red curve) or an irrelevant protein (control transfectant: blue and green curves). Binding of EQ-8D11-C1 was detected with a PE-conjugated secondary antibody. A positive signal was obtained only with CD34 transfected cells.

