PRODUCT DATA SHEET
ANTI-OVINE CD34 MONOCLONAL ANTIBODY

PRODUCT INFORMATION

Catalog Number:	GM-0805	**Clone:**	EQ-8D11-C1
Description:	purified monoclonal mouse antibody	**Specificity:**	anti-ovine CD34
Isotype:	IgG2a/kappa	**Purification:**	Protein G
Storage:	short term: 2°C – 8°C; long term: –20°C (avoid repeated freezing and thawing)	**Buffer:**	phosphate buffered saline, pH 7.2
Immunogen:	genetic immunization with cDNA encoding the extracellular domain of ovine CD34	**Selection:**	based on recognition of the complete native protein expressed on transfected mammalian cells

WORKING DILUTIONS

Flow cytometry:	1.2 µg/10^6 cells		
ELISA:	1:200 – 1:400	**CELISA:**	1:200 - 1:400
For each application a titration should be performed to determine the optimal concentration.			

SPECIFICITY TESTING BY FLOW CYTOMETRY

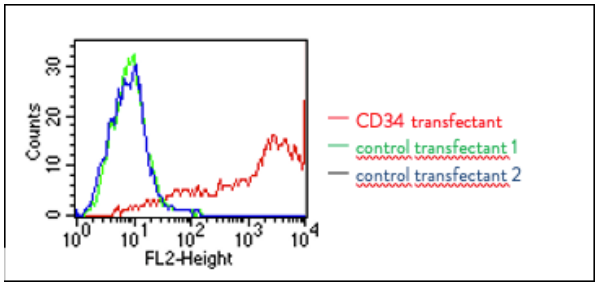

Fig. 1: FACS analysis of BOSC23 cells using EQ-8D11-C1 Cat. # GM-0805. BOSC23 cells were transiently transfected with an expression vector encoding either CD34 (red curve) or an irrelevant protein (control transfectant: blue and green curves). Binding of EQ-8D11-C1 was detected with a PE-conjugated secondary antibody. A positive signal was obtained only with CD34 transfected cells.

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CGE ANALYSIS OF EQ-8D11-C1

The antibody was purified by protein G affinity chromatography from cell culture supernatants and verified by CGE (Fig. 2).

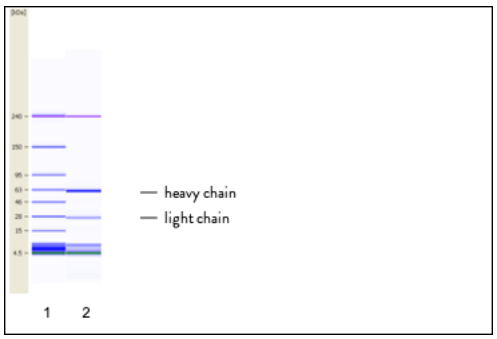

Fig. 2: CGE analysis of purified EQ-8D11-C1 monoclonal antibody. Lane 1: molecular weight marker, Lane 2: 2 µg of purified EQ-8D11-C1 antibody. Proteins were separated by CGE (capillary gel electrophoresis, Agilent 2100 Bioanalyzer). Internal control bands (240 kDa / 7 kDa / 4,5 kDa).

BACKGROUND

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.

REFERENCES

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. ***Porada CD et al (2008).*** Development and characterization of a novel CD34 monoclonal antibody that identifies sheep hematopoietic stem/progenitor cells. Exp Hematol, 36/12: 1739-1749.
3. ***Civin CI et al (1984).*** Antigenic analysis of hematopoiesis. III. A hematopoietic progenitor cell surface antigen defined by a monoclonal antibody raised against KG-1a cells. J Immunol. 133/1: 157-65.

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