



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CD34 Protein
Catalog Number: hRP-1124
Manufacturer: LD Biopharma, Inc.

Introduction

The protein encoded by human CD34 gene may play a role in the attachment of stem cells to the bone marrow extracellular matrix or to stromal cells. This single-pass membrane protein is highly glycosylated and phosphorylated by protein kinase C. Two transcript variants encoding different isoforms have been found for this gene.

Full-length extracellular domain of human CD34 cDNA (32 – 290 aa, derived from BC039146) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein is expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: CD34
Accession Number: NP_001764
Species: Human
Size: 50 µg / Vial
Composition: 1.0 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Koh,Y., et al., *The lack of CD34 expression in gastrointestinal stromal tumors is related to cystic degeneration following imatinib use.* Jpn. J. Clin. Oncol. 42 (11), 1020-1027 (2012)

Ajili,F., et al., *Prognostic impact of angiogenesis in nonmuscle invasive bladder cancer as defined by microvessel density after immunohistochemical staining for CD34.* Ultrastruct



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Pathol 36 (5), 336-342 (2012)

Satterthwaite, A.B., et al., *Structure of the gene encoding CD34, a human hematopoietic stem cell antigen*. Genomics 12 (4), 788-794 (1992)

Applications

1. May be used for in vitro CD34 mediated HSC differentiation regulation study with this protein as either coating matrix protein or soluble factor.
2. May be used as CD34 protein-protein interaction assay.
3. Potential diagnostic biomarker for various cancer treatment selections.
4. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGGEFSLDNNGTATPELPTQGTFSNVSTNVS YQETTTTPST
LGSTSLHPVSQHGNEATTNITETTVKFTSTSVITSVYGNTNSSVQSQTSVISTVFTTPANVSTP
ETTLKPSLSPGNVSDLSTTSTSLATSPTKPYTSSSPILSDIKAEIKCSGIREVKLTQGICLEQN
KTSSCAEFKKDRGEGLARVLCGEEQADADAGAQC SLLLAQSEVRPQCLLLVLNRTEISSKLQ
LMKKHQSDLKKLGILDFTEQDVASHQSYSQKT