



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CD164 Protein
Catalog Number: hRP-0370
Manufacturer: LD Biopharma, Inc.

Introduction

Human CD164 (Sialomucins) belongs to a heterogeneous group of secreted or membrane-associated mucins that appear to play 2 key but opposing roles in vivo: first as cytoprotective or antiadhesive agents, and second as adhesion receptors. CD164 is a type I integral transmembrane sialomucin that functions as an adhesion receptor. Recombinant CD164 protein may serve as coating matrix protein for studying of hematopoietic stem cell (HSC) functions in vitro.

Full-length of human CD164 extracellular domain cDNA (24 - 162 aa) was constructed with 29 N-terminal T7/His tag and expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified as soluble protein. Coating this recombinant protein at 1-10 ug / well (6 well plate) in HSC cell specific medium can be used for human HSC / receptor interaction study in vitro.

Gene Symbol: CD164 (endolyn, MUC-24)
Accession Number: NP_006007
Species: Human
Size: 100 µg / Vial
Composition: 0.5 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 -20°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Masuzawa, Y., et al. *A novel core protein as well as polymorphic epithelial mucin carry*



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peanut agglutinin binding sites in human gastric carcinoma cells: sequence analysis and examination of gene expression. J. Biochem. 112 (5), 609-615. (1992)

Zannettino,A.C., et al. The sialomucin CD164 (MGC-24v) is an adhesive glycoprotein expressed by human hematopoietic progenitors and bone marrow stromal cells that serves as a potent negative regulator of hematopoiesis. Blood 92 (8), 2613-2628. (1998).

Applications

1. Protein can be used as coating matrix protein for study human HSC / Receptor interaction in vitro.
2. As highly purified protein, may be used as culture matrix protein for regulation of HSC differentiation study in vitro.

Quality Control

1. Purity: > 90% by SDS-PAGE.
2. Functional Test: Not tested yet.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGGEFDKNTTQHPNVTTTLAPI SNVTSAPVTS LPLVTTTPAP
ETCEGRNSCVSCFNVSVVNTTFCWIECKDESYCSHNSTVSDCQVGNTTDFCSVSTATPVPTANS
TAKPTVQPSPSTTSKTVTTSGTTNNTVTPPTSQPVRKSTFD