



LD Biopharma, Inc.
9924 Mesa Rim Road
San Diego, CA 92121
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<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human CD179b Protein
Catalog Number: hRP-1009
Manufacturer: LD Biopharma, Inc.

Introduction

The preB cell receptor is found on the surface of proB and preB cells, where it is involved in transduction of signals for cellular proliferation, differentiation from the proB cell to the preB cell stage, allelic exclusion at the Ig heavy chain gene locus, and promotion of Ig light chain gene rearrangements. The preB cell receptor is composed of a membrane-bound Ig mu heavy chain in association with a heterodimeric surrogate light chain. Human immunoglobulin lambda-like polypeptide 1 (IGLL1; CD179b) gene encodes one of the surrogate light chain subunits and is a member of the immunoglobulin gene superfamily. CD179b gene does not undergo rearrangement. Mutations in this gene can result in B cell deficiency and agammaglobulinemia, an autosomal recessive disease in which few or no gamma globulins or antibodies are made.

Full-length mature human CD179b cDNA (38-213aa, Isoform-1, derived from BC012293) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal 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.

Gene Symbol: CD179b (AGM2; IGLL1; IGL1; IGL5; IGLJ14.1)
Accession Number: NP_064455
Species: Human
Size: 40 µg / Vial
Composition: 0.4 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.



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Key References

Tsubata, T. et al., *The products of pre-B cell-specific genes (lambda 5 and VpreB) and the immunoglobulin mu chain form a complex that is transported onto the cell surface.* J. Exp. Med. 172 (3), 973-976 (1990)

Bourne, P.C., et al., *Three-dimensional structure of an immunoglobulin light-chain dimer with amyloidogenic properties.* Acta Crystallogr. D Biol. Crystallogr. 58 (PT 5), 815-823 (2002)

Applications

1. May be used for in vitro human B cell differentiation regulation study with this protein as coating or matrix protein.
2. May be used for protein-protein interaction assay development.
3. As antigen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGGEGLLRPTAASQSRALGPGAPGGSSRSSLRSRWGRFLL
QRGSWTGPRCWPGRGFQSKHNSVTHVFGSGTQLTVLSQPKATPSVTLFPPSSEELQANKATLVCL
MNDFYPGILTVTWKADGTPITQGVEMTTPSKQSNNKYAASSYLSLTPEQWRSRRSYSCQVMHEG
STVEKTVAPAECS