



LD Biopharma, Inc.
7384 Trade Street, Suite B
San Diego, CA 92121
Tel: 858-876-8266
<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human **RBP4** Protein
Catalog Number: HRP-2595
Manufacturer: LD Biopharma, Inc. USA

Introduction

Human **Retinol-binding protein 4 (RBP4)** gene encodes a secreted protein which is a retinol-binding protein that mediates retinol transport in blood plasma. It may deliver retinol from the liver stores to the peripheral tissues. RBP4 transfers the bound all-trans retinol to STRA6, that then facilitates retinol transport across the cell membrane. Recent single cell mRNA sequence data indicated that RBP4 was highly expressed in pancreatic ductal adenocarcinoma (PDAC) samples, which might be a good biomarker for its PDAC diagnostic application.

Full-length mature form of human CD147 cDNA (19 – 201aa, derived from BC020633) was constructed with codon optimization gene synthesis and expressed with a human alpha Fetal Protein N-terminal (AFPn) -His-TEV cleavage site Tag (217aa) fusion at its N-terminal 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:	RBP4 (RET4; PRO2222)
Accession Number:	NP_006735
Species:	Human
Size:	40 µg / Vial
Composition:	0.4 mg/ml, sterile by filtration, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, Sucrose, DTT and others.
Storage:	In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least two weeks.

Key References



LD Biopharma, Inc.
7384 Trade Street, Suite B
San Diego, CA 92121
Tel: 858-876-8266
<http://www.ldbiopharma.com>

Matthew K Iyer, et al., *Digital spatial profiling of intraductal papillary mucinous neoplasms: toward a molecular framework for risk stratification*. Sci.Adv.9, eade4582 (2023)

Deng X, et al.,. *Positive Expression of Retinol-Binding Protein 4 Is Related to the Malignant Clinical Features Leading to Poor Prognosis of Glioblastoma*. Genet Res (Camb) 2022, 5435523 (2022)

Flores-Cortez YA, et al., *Interplay of retinol binding protein 4 with obesity and associated chronic alterations (Review)*. Mol Med Rep 26(1) (2022)

Applications

1. May be used for in vitro RBP4 mediated signaling regulation study in vitro for various cells with this recombinant RBP4 protein either as soluble factor or as coating matrix protein.
2. May be used for RBP4 protein-protein interaction assay.
3. Potential biomarker protein for various diseases, such as PDAC.
4. As native human RBP4 immunogen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Human **AFP_n**- RBP4 Fusion Protein Sequence (45.8 kD)

MTLHRNEYGIASILDSYQCTAEISLADLATIFFAQFVQEATYKEVSKMVKDALTAIEKPTGDEQ
SSGCLLENQLPAFLEELCHEKEILEKYGHSDCCSQSEEGRHNCFLAHKKPTPASIPLFQVPEPVT
SCEAYEEDRETFMNKFIYEIARRHPFLYAPTILLWAARYDKIIPSCCKAENAVECFQTKAATVT
KELRESSGGSHHHHHGSENLYFQGEERDCRVSSFRVKENFDKARFSGTWYAMAKKDPEGLFL
QDNIVAEFSVDETQMSATAKGRVRLNNDVVCADMVGTFTDTPAKFKMKYWGVASFLOKGN
DDHWIVD TDYDTYAVQYSCRLNLNDGTCADSYSFVFSRDPNGLPPEAQKIVRQRQEELCLARQY
RLIVHNGYCDGRSERNLL