

LD Biopharma, Inc. 9924 Mesa Rim Road Suite B San Diego, CA 92121 Tel: 858-876-8266 http://www.ldbiopharma.com

# - PRODUCT DATA SHEET -

Name of Product:Recombinant Human TULP2 ProteinCatalog Number:hRP-1296Manufacturer:LD Biopharma, Inc.

#### Introduction

As secreted protein, human TULP2 is a member of a family of tubby-like genes (TULPs) that encode proteins of unknown function. Members of this family have been identified in plants, vertebrates, and invertebrates. The TULP proteins share a conserved C-terminal region of approximately 200 amino acid residues. TULP is highly expressed in many tumors and weakly expressed in normal tissues except testis and retina. This protein is a good candidate target for potential cancer vaccine development or used as biomarker protein for early cancer diagnostic applications.

Full-length human TULP2 cDNA (2 – 520 aa) 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:	TULP2 (CT65; TUBL2)
Accession Number:	NP_003314
Species:	Human
Size:	20 µg / Vial
Composition:	0.2 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Sucrose.
Storage:	In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

#### **Key References**



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Carroll,K., et al., *Tubby proteins: the plot thickens*. Nat. Rev. Mol. Cell Biol. 5 (1), 55-63 (2004) Boggon,T.J., et al., *Implication of tubby proteins as transcription factors by structure-based functional analysis*. Science 286 (5447), 2119-2125 (1999)

### Applications

- 1. May be used for in vitro TULP2 protein mediated germ cell, embryonic development regulation or tumor cell transformation study with "ProFectin" based intracellular delivery of this protein.
- 2. May be used for TULP2 protein protein interaction assay.
- 3. As Enzymatic substrate for various proteases.
- 4. Potential diagnostic biomarker protein for various cancer or auto-antigen for various auto-immuno-diseases.
- 5. May be used for specific antibody production.

## **Quality Control**

Purity: > 90% by SDS-PAGE.

#### **Recombinant Protein Sequence**

MASMTGGQQMGRGHHHHHHENLYFQGGEFSQDNDTLMRDILGHELAAMRLQKLEQQRRLFEKKQ RQKRQELLMVQANPDASPWLWRSCLREERLLGDRGLGNPFLRKKVSEAHLPSGIHSALGTVSCG GDGRGERGLPTPRTEAVFRNLGLQSPFLSWLPDNSDAELEEVSVENGSVSPPPFKQSPRIRRKG WQAHQRPGTRAEGESDSQDMGDAHKSPNMGPNPGMDGDCVYENLAFQKEEDLEKKREASESTGT NSSAAHNEELSKALKGEGGTDSDHMRHEASLAIRSPCPGLEEDMEAYVLRPALPGTMMQCYLTR DKHGVDKGLFPLYYLYLETSDSLQRFLLAGRKRRRSKTSNYLISLDPTHLSRDGDNFVGKVRSN VFSTKFTIFDNGVNPDREHLTRNTARIRQELGAVCYEPNVLGYLGPRKMTVILPGTNSQNQRIN VQPLNEQESLLSRYQRGDKQGLLLLHNKTPSWDKENGVYTLNFHGRVTRASVKNFQIVDPKHQE HLVLQFGRVGPDTFTMDFCFPFSPLQAFSICLSSFN