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 VPS28 Protein
Catalog Number: hRP-0744
Manufacturer: LD Biopharma, Inc.

Introduction

Human vacuolar protein sorting-associated protein 28 homolog (VPS28) gene encodes a protein involved in endosomal sorting of cell surface receptors via a multivesicular body/late endosome pathway. The encoded protein is one of the three subunits of the ESCRT-I complex (endosomal complexes required for transport) involved in the sorting of ubiquitinated proteins. The two other subunits of ESCRT-I are vesicular protein sorting 23, also known as tumor susceptibility gene 101 (TSG101), and vesicular protein sorting 37. Two alternative transcripts encoding different isoforms have been described.

Full-length human VPS28 (221aa, Isoform_1) gene was constructed with 19aa N-terminal T7 tag and expressed in E.coli as inclusion bodies, refolded using our unique "temperature shift inclusion body refolding" technology and chromatographically purified.

Gene Symbol:	VPS28
Accession Number:	NP_057292
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, sucrose and DTT.
Storage:	In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Doring,T., et al., *gamma2-Adaptin is functioning in the late endosomal sorting pathway and interacts with ESCRT-I and -III subunits*. Biochim. Biophys. Acta 1803 (11), 1252-1264 (2010)

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Bruce,E.A., et al., *Budding of filamentous and non-filamentous influenza A virus occurs via a VPS4 and VPS28-independent pathway*. Virology 390 (2), 268-278 (2009)

Eastman,S.W., et al., *Identification of human VPS37C, a component of endosomal sorting complex required for transport-I important for viral budding*. J. Biol. Chem. 280 (1), 628-636 (2005)

Applications

1. May be used for in vitro endosomal sorting pathway regulation study with intracellular delivery methods.
2. As soluble /native protein, may be used as enzymatic substrate protein for ubiquitin assay.
3. May be used for mapping viral particle budding pathway regulation with protein–protein interaction assay.
4. May be used as antigen for specific antibody development.

Quality Control

1. Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGEFGSTSMFHGIPATPGIGAPGNKPELYEEVKLYKNARELEKYDNMAELFAV
VKTMQALEKAYIKDCVSPSEYTAACSRLLVQYKAAFRQVQGSEISSIDEFCRKFRLDCPLAMER
IKEDRPITIKDDKGNLNRCIADVVSLFITVMDKLRLEIRAMDEIQPDLRELMETMHRMSHLPPD
FEGRQTVSQWLQTLSGMSASDELDDSQVRQMLFDLESAYNAFNRFLHA