



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human ERP29 Protein
Catalog Number: hRP-2435
Manufacturer: LD Biopharma, Inc.

Introduction

Ubiquitously and mostly expressed in secretory tissues, human endoplasmic reticulum protein 29 (ERP29) gene encodes a protein which localizes to the lumen of the endoplasmic reticulum (ER). It is a member of the protein disulfide isomerase (PDI) protein family but lacks an active thioredoxin motif, suggesting that this protein does not function as a disulfide isomerase. The canonical protein dimerizes and is thought to play a role in the processing of secretory proteins within the ER, possibly participating in the folding of proteins in the ER. Anti-ERP29 auto-antibodies have been found in sera from patients with autoimmune diseases.

Cytoplasmic domain of human ERP29 (33 -261aa, derived from BC101495) gene was constructed with 29 aa N-terminal T7 / His / TEV cleavage site 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.

Gene Symbol: ERP29 (C12orf8, ERp28; ERp31; HEL-S-107; PDI-DB; PDIA9)
Accession Number: NP_006808.1
Species: Human
Size: 10 µg / Vial
Composition: 0.1 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

Zhang Y, et al., *Proteomic identification of ERP29 as a key chemoresistant factor activated by the aggregating p53 mutant Arg282Trp*. *Oncogene* 36 (39), 5473-5483 (2017)



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Nakao H, et al., *PDI family protein ERp29 recognizes P-domain of molecular chaperone calnexin*. *Biochem. Biophys. Res. Commun.* 487 (3), 763-767 (2017)

Zhang K, et al., *Comparison of ILK and ERP29 expressions in benign and malignant pancreatic lesions and their clinicopathological significances in pancreatic ductal adenocarcinomas*. *Clin Transl Oncol* 18 (4), 352-359 (2016)

Huang C, et al., *Erp29 Attenuates Cigarette Smoke Extract-Induced Endoplasmic Reticulum Stress and Mitigates Tight Junction Damage in Retinal Pigment Epithelial Cells*. *Invest. Ophthalmol. Vis. Sci.* 56 (11), 6196-6207 (2015)

Applications

1. May be used as auto-antibodies detection reagent, which will react with sera of some auto-immuno-diseases's patients.
2. May be used for mapping protein-protein interaction.
3. May be used as specific substrate protein for specific kinase, and ubiquitin (Sumo pathway) related enzyme functional screening assays.
4. As immunogen for specific antibody production.

Quality Control

Purity: > 70% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHENLYFQGGEFLHTKGALPLDVTFTFYKVIIPKSKFVLVKFDTQYPYG
EKQDEFKRLAENSASSDDLVAEVGISDYGDKLNMEELSEKYKLDKESYPVFYLFDRDGFENPVP
YTGAVKVGAIQRWLKGGVYLGMPGCLPVYDALAGEFIRASGVEARQALLKQGQDNLSVKETQ
KKWAEQYLKIMGKILDQGEDFPASEMTRIARLIEKNKMSDGKKEELQKSLNILTAFQKKGAEKE
EL