



LD Biopharma, Inc.
7384 Trade Street, Suite B
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human GINS3 Protein
Catalog Number: HRP-2841
Manufacturer: LD Biopharma, Inc.

Introduction

Human DNA replication complex GINS protein PSF3 (GINS3) gene encodes a member of GINS complex, which plays an essential role in the initiation of DNA replication, and progression of DNA replication forks. GINS complex seems to bind preferentially to single-stranded DNA. As a component of the GINS complex which is a hetero-tetramer of GINS1, GINS2, GINS3 and GINS4. It forms a stable sub-complex with GINS2. GINS complex interacts with DNA primase in vitro.

Full-length human GINS3 cDNA (215aa, Isoform-I) was constructed with codon optimization gene synthesis and expressed with a human N-terminalT7-His-TEV cleavage site Tag (29aa) fusion. This protein was 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: GINS3 (PSF3)
Accession Number: NP_073607.2
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, DTT and other.
Storage: In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Lian YF, et al., *Up-regulated and interrelated expressions of GINS subunits predict poor prognosis in hepatocellular carcinoma*. Biosci. Rep. 38 (6) (2018)



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Tauchi S, et al., *Psf3 is a prognostic biomarker in lung adenocarcinoma: a larger trial using tissue microarrays of 864 consecutive resections*. Eur J Cardiothorac Surg 50 (4), 758-764 (2016)

Tane S, et al., *Significant role of Psf3 expression in non-small-cell lung cancer*. Cancer Sci. 106 (11), 1625-1634 (2015)

Applications

1. May be used for in vitro GINS3 mediated DNA replication pathway regulation for cancer cell proliferation study using intracellular delivery of recombinant human GINS3 protein with protein delivery reagent such as ProFectin.
2. May be used for GINS3 protein-protein interaction assay.
3. May be used as specific substrate protein for GINS3 specific kinase, and ubiquitin (Sumo pathway) related enzyme functional screening assays.
4. Potential diagnosis / therapeutic protein, which may be used for various cancer prognosis or therapeutic drug development.
5. As native human GINS3 immunogen for specific antibody production.

Quality Control

Purity: > 92 % by SDS-PAGE.

Recombinant Human GINS3 Protein Sequence (27.7 kD)

MASMTGGQQMGRGRHHHHHENLYFQGGEFSEAYFRVESGALGPEENFLSLDDILMSHEKLPVRT
ETAMPRLGAFFLERSAGAETDNAVPQGSKLELPLWLAKGLFDNKRRIILSVELPKIYQEGWRTVF
SADPNVVDLHKMGPHFYGFSGQLLHFDSPENADISQSLLQTFIGRFRIMDSSQNAYNEDTSAL
VARLDEMERGLFQTGQKGLNDFQCWEKQASQITASNLVQNYKKRKF'DMED