LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human GINS2 Protein
Catalog Number: hRP-0952
Manufacturer: LD Biopharma, Inc.

Introduction

The yeast heterotetrameric GINS complex is made up of Sld5 (GINS4; MIM 610611), Psf1 (GINS1), (GINS2) PSF2, and PSF3 (GINS3). The formation of this complex is essential for the initiation of DNA replication in yeast and Xenopus egg extracts. Human GINS2 activities were demonstrated to be involved in regulation of breast cancer development.

Full-length mature protein of human GINS2 (185aa) gene was constructed with 17 aa N-terminal T7 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:	GINS2 (HSPC037; PSF2)
Accession Number:	NP_057179
Species:	Human
Size:	50 µg / Vial
Composition:	0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.
Storage:	In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

Key References

Kang,Y.H., et al., *Properties of the human Cdc45/Mcm2-7/GINS helicase complex and its action with DNA polymerase epsilon in rolling circle DNA synthesis*. Proc. Natl. Acad. Sci. U.S.A. 109 (16), 6042-6047 (2012)

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Rantala,J.K., et al. *Integrative functional genomics analysis of sustained polyploidy phenotypes in breast cancer cells identifies an oncogenic profile for GINS2*. Neoplasia 12 (11), 877-888 (2010)

Applications

1. May be used for in vitro GINS2 mediated *DNA replication initiation* regulation study by intracellular delivery of this protein with “ProFectin” reagent.
2. May be used for mapping GINS2 protein – protein interaction assay.
3. May be used as specific substrate protein for kinase and ubiquitin (Sumo pathway) related enzyme functional screening assays.
4. Potential biomarker protein for breast cancer diagnosis.
5. May be used for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGEFGSMDAAEVEFLAEKELVTIIPNFSLDKIYLIGGDLGPFNPGLPVEVPLW
LAINLKQRQKCRLLPPEWMDVEKLEKMRDHERKEETFTPMPSPYYMELTKLLLNHASDNIPKAD
EIRTLVKDMWDTRIAKLRVSADSFVRQQEAHAKLDNLTLMEINTSGTFLTQALNHMYKLRTNLQ
PLESTQSQDF