



LD Biopharma, Inc.
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- PRODUCT DATA SHEET -

Name of Product: Recombinant Human GATA3 Protein
Catalog Number: hTF-1527
Manufacturer: LD Biopharma, Inc.

Introduction

Human GATA3 (Trans-acting T cell specific transcription factor) belongs to the GATA family of transcription factors. The protein contains two GATA-type zinc fingers and is an important regulator of T cell development and plays an important role in endothelial cell biology. GATA3 has been shown to promote the secretion of IL4, IL5, and IL13 from Th2 cells.

human GATA3 cDNA (442 aa, derived from BC003070) was constructed with codon optimization technology 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. It was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: GATA3 (HDR; HDRS)
Accession Number: NP_002042.1
Species: Human
Size: 20 µg / Vial
Composition: 0.20 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 7 days.

Key References

Gonzalez-Roibon N, et al., *Comprehensive profile of GATA binding protein 3 immunohistochemical expression in primary and metastatic renal neoplasms*. Hum. Pathol. 45 (2), 244-248 (2014)

Chen,H., et al., *Research on the roles of transcription factors T-bet and GATA-3 in*



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aplastic anemia. Clin. Lab. 60 (2), 291-295 (2014)

Sun J, et al., *GATA3 transcription factor abrogates Smad4 transcription factor-mediated fascin overexpression, invadopodium formation, and breast cancer cell invasion*. J. Biol. Chem. 288 (52), 36971-36982 (2013)

Marine J et al., *The human enhancer-binding protein Gata3 binds to several T-cell receptor regulatory elements*. Proc. Natl. Acad. Sci. U.S.A. 88 (16), 7284-7288 (1991)

Applications

1. May be used for in vitro GATA3 mediated gene transcription regulation for *T cell's differentiation* with "ProFectin" reagent based intracellular delivery of this protein.
2. May be used as specific protein substrate for kinase and ubiquitin (Sumo pathway) related enzyme functional screening assays.
3. May be used for GATA3 protein-protein interaction mapping.
4. As immunogen for specific antibody production.

Quality Control

Purity: > 90% by SDS-PAGE.

Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHHENLYFQGEVTADQPRWVSHHHPAVLNGQHPDTHHPGLSHSYMDAA
QYPLPEEVDVLFNIDGQGNHVPPYYGNSVRATVQRYPPTHHGSQVCRPPLLHGSLPWLDGGKAL
GSHHTASPWNLSPFKTSIHGSPGPLSVYPPASSSSLSGGHASPFLFTFPPTPPKDVSPDPSL
STPGSAGSARQDEKECLKYQVPLPDSMKLESSHSRGSMTALGGASSSTHHPITTYPPYVPEYSS
GLFPPSSLLGGSPGFGCKSRPKARSSTGRECVNCGATSTPLWRRDGTGHYLCNACGLYHKMNG
QNRPLIKPKRRLSAARRAGTSCANCQTTTTLWRRNANGDPVCNACGLYYKLHNINRPLTMKKE
GIQTRNRKMSSSKKCKKVHDSLEDFPKNSSFNPAALSRHMSSLSHISPFSSHMLTTPTPMH
PPSSLSFGPHHPSSMVTAMG