

Recombinant Mouse GFI1B Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51178

Size: 10ug, 100ug

Protein Name: Zinc finger protein Gfi-1b (Growth factor independent protein 1B)

Synonym: Gfi1b

UniProt ID: O70237

UniProt Link: www.uniprot.org/uniprotkb/O70237/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 330 AA

Molecular Weight: 37 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MPRSFLVKSKKAHTYHQPRAQGDELVWPPAVIPVAKEHSQSASPLLSTPLPSQTLDWNTIKQEREM
LLNQSLPKMASAPEGPLVTPQPQDGESPLSESPFYKPSFSWDTLASSYSHSYTQTPSTMQSAFLE
RSVRLYGSPLVPSTESPLDFRLRYSPGMDTYHCVKCNKVFSTPHGLEVHVRRSHSGTRPFACDVC
GKTFGHAVSLEQHTHVHSQERSFECRMCGKAFKRSSTLSTHLLIHS DTRPYPCQFCGKRFBHQKSDM
KKHTYIHTGEKPHKCQVCGKAFSQSSNLITHSRKHTGFKPFSCELCTKGFQRKVDLRRHRESQHNL
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3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Zinc finger protein Gfi-1b (Growth factor independent protein 1B) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Essential proto-oncogenic transcriptional regulator necessary for development and differentiation of erythroid and megakaryocytic lineages. Component of a RCOR-GFI-KDM1A-HDAC complex that suppresses, via histone deacetylase (HDAC) recruitment, a number of genes implicated in multilineage blood cell development and controls hematopoietic differentiation. Transcriptional repressor or activator depending on both promoter and cell type context; represses promoter activity of SOCS1 and SOCS3 and thus, may regulate cytokine signaling pathways. Cooperates with GATA1 to repress target gene transcription, such as the apoptosis regulator BCL2L1; GFI1B silencing in leukemic cell lines markedly increase apoptosis rate. Inhibits down-regulation of MYC and MYB as well as the cyclin-dependent kinase inhibitor CDKN1A/P21WAF1 in IL6-treated myelomonocytic cells. Represses expression of GATA3 in T-cell lymphomas and inhibits GATA1-mediated transcription; as GATA1 also mediates erythroid GFI1B transcription, both GATA1 and GFI1B participate in a feedback regulatory pathway controlling the expression of GFI1B gene in erythroid cells. Suppresses GATA1-mediated stimulation of GFI1B promoter through protein interaction. Binds to gamma-satellite DNA and to its own promoter, auto-repressing its own expression. Alters histone methylation by recruiting histone methyltransferase to target genes promoters. Plays a role in heterochromatin formation.

Subcellular Localization: Nucleus . Note=Localized at foci of pericentric heterochromatin.

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.