

Datasheet for ABIN3134645

## GFI1 Protein (AA 1-423) (Strep Tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	GFI1
Protein Characteristics:	AA 1-423
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GFI1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

#### Product Details

Sequence:	<p>MPRSFLVKSK KAHSYHQPRS PGPDYSLRLE TVPAPGRAEG GAVSAGESKM EPRERLSPDS              QLTEAPDRAS ASPNSCEGSV CDCPCSEFEDF WRPPSPSVSP ASEKSLCRSL DEAQPYTLPF              KPYAWSGLAG SDLRHLVQSY RQCSALERSA GLSLFCERGS EPGRPAARYG PEQAAGGAGA              GQPGRCGVAG GATSAAGLGL YGDFAPAAAG LYERPSTAAG RLYQDHGHEL HADKSVGKVKV              ESELLCTRLLL LGGGSYKCIK CSKVFSTPHG LEVHVRRSHS GTRPFACEMC GKTFGHAVSL              EQHKAVHSQE RSFDCKICGK SFKRSSTLST HLLIHS DTRP YPCQYCGKRF HQKSDMKKHT              FIHTGEKPHK CQVCGKAFSQ SSNLITHSRK HTGFKPFGCD LCGKGFQRKV DLRRHRETQH GLK</p> <p><b>Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.</b></p>
Characteristics:	Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

### Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

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### Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

## Product Details

Purity:	≥ 80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

## Target Details

Target:	GFI1
Alternative Name:	Gfi1 ( <a href="#">GFI1 Products</a> )
Background:	<p>Zinc finger protein Gfi-1 (Growth factor independent protein 1),FUNCTION: Transcription repressor essential for hematopoiesis. Functions in a cell-context and development-specific manner. Binds to 5'-TAAATCAC[AT]GCA-3' in the promoter region of a large number of genes. Component of several complexes, including the EHMT2-GFI1-HDAC1, AJUBA-GFI1-HDAC1 and RCOR-GFI-KDM1A-HDAC complexes, that suppress, via histone deacetylase (HDAC) recruitment, a number of genes implicated in multilineage blood cell development. Regulates neutrophil differentiation, promotes proliferation of lymphoid cells, and is required for granulocyte development (PubMed:17197705). Inhibits SPI1 transcriptional activity at macrophage-specific genes, repressing macrophage differentiation of myeloid progenitor cells and promoting granulocyte commitment (PubMed:17197705). Mediates, together with U2AF1L4, the alternative splicing of CD45 and controls T-cell receptor signaling. Regulates the endotoxin-mediated Toll-like receptor (TLR) inflammatory response by antagonizing RELA (PubMed:20547752). Cooperates with CBFA2T2 to regulate ITGB1-dependent neurite growth. Controls cell-cycle progression by repressing CDKNIA/p21 transcription in response to TGFβ1 via recruitment of GFI1 by ZBTB17 to the CDKNIA/p21 and CDKNIB promoters. Required for the maintenance of inner ear hair cells (PubMed:12441305). {ECO:0000269 PubMed:12441305, ECO:0000269 PubMed:17197705, ECO:0000269 PubMed:17707228, ECO:0000269 PubMed:20547752, ECO:0000269 PubMed:8622900}.</p>
Molecular Weight:	45.9 kDa
UniProt:	<a href="#">P70338</a>

## Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
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## Application Details

Comment:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.</p> <p>During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!</p>
Restrictions:	For Research Use only

## Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

## Images



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process