

Datasheet for ABIN3080484
GBP3 Protein (AA 1-595) (Strep Tag)[Go to Product page](#)

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Overview

Quantity:	1 mg
Target:	GBP3
Protein Characteristics:	AA 1-595
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GBP3 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	<p>MAPEIHMTGP MCLIENTNGE LVANPEALKI LSAITQPVVV VAIVGLYRTG KSYLMNKLAV KNKGFSLGST VKSHTKGIWM WCVPHPKKPE HTLVLLDTEG LGDVKKGDNQ NDSWIFTLAV LLSSTLVYNS MGTINQQAMD QLYYVTELTH RIRSKSSPDE NENEDSADSV SFFPDFVWTL RDFSLDLEAD GQPLTPDEYL EYSLKLTQGT SQKDKNFNLP RLCIRKFFPK KCCFVFDLPI HRRKLAQLEK LQDEELDPEF VQQVADFCYS IFSNSKTKTL SGGIKVNGPR LESLVLTYN AISRGDLPCM ENAVLALAQI ENSAAVQKAI AHYDQQMGQK VQLPAETLQE LLDLHRVSR EATEVYMKNS FKDVDHLFQK KLAAQLDKKR DDFCKQNQEA SSDRCSALLQ VIFSPLEEEV KAGIYSKPGG YCLFIQKLQD LEKKYEEPR KGIQAEELQ TYLKSKEST DAILQTDQIL TEKEKEIEVE CVKAESAQAS AKMVEEMQIK YQQMMEEKEK SYQEHVKQLT EKMERERAQL LEEQEKTLTS KLQEQRVLK ERCQGESTQL QNEIQLQKT LKKKTKRYMS HKLKI</p> <p>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</p>
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have a special request, please contact us.

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.

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.

Product Details

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.

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:	GBP3
Alternative Name:	GBP3 (GBP3 Products)
Background:	<p>Guanylate-binding protein 3 (EC 3.6.5.-) (GTP-binding protein 3) (GBP-3) (Guanine nucleotide-binding protein 3),FUNCTION: Interferon (IFN)-inducible GTPase that plays important roles in innate immunity against a diverse range of bacterial, viral and protozoan pathogens (PubMed:22106366). Hydrolyzes GTP very efficiently, GDP rather than GMP is the major reaction product (By similarity). Following infection, recruited to the pathogen-containing vacuoles or vacuole-escaped bacteria and acts as a positive regulator of inflammasome assembly by promoting the release of inflammasome ligands from bacteria (By similarity). Acts by promoting lysis of pathogen-containing vacuoles, releasing pathogens into the cytosol (By similarity). Following pathogen release in the cytosol, promotes recruitment of proteins that mediate bacterial cytolysis: this liberates ligands that are detected by inflammasomes, such as lipopolysaccharide (LPS) that activates the non-canonical CASP4/CASP11 inflammasome or double-stranded DNA (dsDNA) that activates the AIM2 inflammasome (By similarity). Exhibits antiviral activity against influenza virus (PubMed:22106366). {ECO:0000250 UniProtKB:Q61107, ECO:0000269 PubMed:22106366}., FUNCTION: [Isoform 2]: Shows the most prominent antiviral activity in epithelial cells. {ECO:0000269 PubMed:22106366}.</p>
Molecular Weight:	68.1 kDa
UniProt:	Q9H0R5

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