antibodies.com

Datasheet for ABIN3080612 GBP7 Protein (AA 1-638) (Strep Tag)





Overview

Quantity:	1 mg
Target:	GBP7
Protein Characteristics:	AA 1-638
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GBP7 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

	Sequence without tag. The proposed Strep-Tag is based on experience s with the expression
	GSIFIAALPG AAKLVDLGMK ILSSLCNRLR NPGKKIIS
	YMRELRKMLS HKMKVLEELL TEGFKEIFES LNEEINRLKE QIEAAENEEP SVFSQILDVA
	LTAGEKAIAA KQAKKEAAEK EQELLRQKQK EQQQMMEAQE RSFQENIAQL KKKMEREREN
	ISRGTFFVPG GHNIYLEAKK KIEQDYTLVP RKGVKADEVL QSFLQSQVVI EESILQSDKA
	REAIAVFMEY SFKDKSQEFQ KKLVDTMEKK KEDFVLQNEE ASAKYCQAEL KRLSELLTES
	DAINSGATPC LENAMAVLAQ CENSAAVQRA ANHYSQQMAQ QVRFPTDTLQ ELLDVHAVCE
	NDKKLLLHVE EVREDQLDSN FQMQSENFCS YIFTHAKTKT LREGILVTGN RLGMLVETYL
	RDFTLELKLD GHPITEDEYL ENALKLISGK NPQIQNSNKP REWIRHFFPK QKCFVFDRPI
	LLSSSFVYNS MGTINHQALE QLHYVTELTE LIRAKSCPRP DEVEDSSEFV SFFPDFIWTV
	KNKGFPLGCT VKSETKGIWM WCVPHPSKPN HTLILLDTEG LGDMEKSDPK SDSWIFALAV
Sequence:	MASEIHMPGP VCLTENTKGH LVVNSEALEI LSAITQPVVV VAIVGLYRTG KSYLMNKLAG

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 1/5 | Product datasheet for ABIN3080612 | 04/16/2024 | Copyright antibodies-online. All rights reserved.

	system, a different complexity of the protein could make another tag necessary. In case you have a special request please contact us.
Characteristica	Kau Danafita:
Characteristics:	 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
	1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 2/5 | Product datasheet for ABIN3080612 | 04/16/2024 | Copyright antibodies-online. All rights reserved. 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.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)</td>Grade:Crystallography grade

Target Details

Target:	GBP7
Alternative Name:	GBP7 (GBP7 Products)
Target: Alternative Name: Background:	GBP7 GBP7 (GBP7 Products) Guanylate-binding protein 7 (EC 3.6.1) (EC 3.6.5) (GTP-binding protein 7) (GBP-7) (Guanine nucleotide-binding protein 7) (Guanylate-binding protein 4-like),FUNCTION: Interferon (IFN)- inducible GTPase that plays important roles in innate immunity against a diverse range of bacterial, viral and protozoan pathogens (By similarity). Hydrolyzes GTP to GMP in two consecutive cleavage reactions and predominantly uses GTP and not GDP or GMP as the substrate (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). Also promotes IFN-gamma-mediated host defense against bacterial infections by regulating oxidative responses and bacteriolytic peptide generation (By similarity). May help to assemble NADPH oxidase on phagosomal membranes by acting as a bridging protein between NADPH oxidase cytosolic subunits NCF2-NCF4 and the membrane subunits CYBA-CYBB (By similarity). Participates along with GBP1 in trafficking monoubiquinated protein cargo to autolysosomes
	for generating ubiquitin-derived antimicrobial peptides (By similarity). Facilitates influenza A
	for generating ubiquitin-derived antimicrobial peptides (By similarity). Facilitates influenza A virus replication by inhibiting the activation of NF-kappaB and JAK-STAT signaling pathways
	and the expression of type I, type III interferons and pro-inflammatory cytokines
	(PubMed:33408175). Confers protection to several pathogens, including the bacterial
	pathogens Listeria monocytogenes and Mycobacterium bovis BCG as well as the protozoan

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 3/5 | Product datasheet for ABIN3080612 | 04/16/2024 | Copyright antibodies-online. All rights reserved.

Handling Advice:

Storage Comment:

Storage:

Expiry Date:

	pathogen Toxoplasma gondii (By similarity). Required for disruption of the parasitophorous
	vacuole formed following T.gondii infection and subsequent killing of the parasite (By
	similarity). {ECO:0000250 UniProtKB:Q91Z40, ECO:0000269 PubMed:33408175}.
Molecular Weight:	72.5 kDa
UniProt:	Q8N8V2
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.
Comment:	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!
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.

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 4/5 | Product datasheet for ABIN3080612 | 04/16/2024 | Copyright antibodies-online. All rights reserved.

Avoid repeated freeze-thaw cycles.

Unlimited (if stored properly)

-80 °C

Store at -80°C.



Image 1. "Crystallography Grade" protein due to multi-step, protein-specific purification process

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 5/5 | Product datasheet for ABIN3080612 | 04/16/2024 | Copyright antibodies-online. All rights reserved.