Datasheet for ABIN3080612

GBP7 Protein (AA 1-638) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	GBP7
Protein Characteristics:	AA 1-638
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GBP7 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Brand:	AliCE®
Sequence:	MASEIHMPGP VCLTENTKGH LVVNSEALEI LSAITQPVVV VAIVGLYRTG KSYLMNKLAG KNKGFPLGCT VKSETKGIWM WCVPHPSKPN HTLILLDTEG LGDMEKSDPK SDSWIFALAV LLSSSFVYNS MGTINHQALE QLHYVTELTE LIRAKSCPRP DEVEDSSEFV SFFPDFIWTV RDFTLELKLD GHPITEDEYL ENALKLISGK NPQIQNSNKP REWIRHFFPK QKCFVFDRPI NDKKLLLHVE EVREDQLDSN FQMQSENFCS YIFTHAKTKT LREGILVTGN RLGMLVETYL DAINSGATPC LENAMAVLAQ CENSAAVQRA ANHYSQQMAQ QVRFPTDTLQ ELLDVHAVCE REAIAVFMEY SFKDKSQEFQ KKLVDTMEKK KEDFVLQNEE ASAKYCQAEL KRLSELLTES ISRGTFFVPG GHNIYLEAKK KIEQDYTLVP RKGVKADEVL QSFLQSQVVI EESILQSDKA LTAGEKAIAA KQAKKEAAEK EQELLRQKQK EQQQMMEAQE RSFQENIAQL KKKMEREREN YMRELRKMLS HKMKVLEELL TEGFKEIFES LNEEINRLKE QIEAAENEEP SVFSQILDVA GSIFIAALPG AAKLVDLGMK ILSSLCNRLR NPGKKIIS

	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.
Characteristics:	Key Benefits: • Made in Germany - from design to production - by highly experienced protein experts. • Protein expressed with ALiCE® and purified in one-step affinity chromatography • 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 try to ensure that you receive soluble 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 against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Product Details

Grade:	custom-made

Target Details

Target:	GBP7
Alternative Name:	GBP7 (GBP7 Products)
Background:	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 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 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. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months