Datasheet for ABIN3092747

GEN1 Protein (AA 1-908) (Strep Tag)

Go to Product page

Overview

Quantity:	250 µg
Target:	GEN1
Protein Characteristics:	AA 1-908
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GEN1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MGVNDLWQIL EPVKQHIPLR NLGGKTIAVD LSLWVCEAQT VKKMMGSVMK PHLRNLFFRI SYLTQMDVKL VFVMEGEPPK LKADVISKRN QSRYGSSGKS WSQKTGRSHF KSVLRECLHM LECLGIPWVQ AAGEAEAMCA YLNAGGHVDG CLTNDGDTFL YGAQTVYRNF TMNTKDPHVD CYTMSSIKSK LGLDRDALVG LAILLGCDYL PKGVPGVGKE QALKLIQILK GQSLLQRFNR WNETSCNSSP QLLVTKKLAH CSVCSHPGSP KDHERNGCRL CKSDKYCEPH DYEYCCPCEW HRTEHDRQLS EVENNIKKKA CCCEGFPFHE VIQEFLLNKD KLVKVIRYQR PDLLLFQRFT LEKMEWPNHY ACEKLLVLLT HYDMIERKLG SRNSNQLQPI RIVKTRIRNG VHCFEIEWEK PEHYAMEDKQ HGEFALLTIE EESLFEAAYP EIVAVYQKQK LEIKGKKQKR IKPKENNLPE PDEVMSFQSH MTLKPTCEIF HKQNSKLNSG ISPDPTLPQE SISASLNSLL LPKNTPCLNA QEQFMSSLRP LAIQQIKAVS KSLISESSQP NTSSHNISVI ADLHLSTIDW EGTSFSNSPA IQRNTFSHDL KSEVESELSA IPDGFENIPE QLSCESERYT ANIKKVLDED SDGISPEEHL

LSGITDLCLQ DLPLKERIFT KLSYPQDNLQ PDVNLKTLSI LSVKESCIAN SGSDCTSHLS KDLPGIPLQN ESRDSKILKG DQLLQEDYKV NTSVPYSVSN TVVKTCNVRP PNTALDHSRK VDMQTTRKIL MKKSVCLDRH SSDEQSAPVF GKAKYTTQRM KHSSQKHNSS HFKESGHNKL SSPKIHIKET EQCVRSYETA ENEESCFPDS TKSSLSSLQC HKKENNSGTC LDSPLPLRQR LKLRFQST

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.

Product Details

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).
Grade:	custom-made

Target Details

Target:	GEN1
Alternative Name:	GEN1 (GEN1 Products)
Background:	Flap endonuclease GEN homolog 1 (EC 3.1.-.-),FUNCTION: Endonuclease which resolves Holliday junctions (HJs) by the introduction of symmetrically related cuts across the junction point, to produce nicked duplex products in which the nicks can be readily ligated. Four-way DNA intermediates, also known as Holliday junctions, are formed during homologous recombination and DNA repair, and their resolution is necessary for proper chromosome segregation (PubMed:19020614, PubMed:26682650). Cleaves HJs by a nick and counter-nick mechanism involving dual coordinated incisions that lead to the formation of ligatable nicked duplex products. Cleavage of the first strand is rate limiting, while second strand cleavage is rapid. Largely monomeric, dimerizes on the HJ and the first nick occurs upon dimerization at the junction (PubMed:26578604). Efficiently cleaves both single and double HJs contained within large recombination intermediates. Exhibits a weak sequence preference for incision between two G residues that reside in a T-rich region of DNA (PubMed:28049850). Has also endonuclease activity on 5'-flap and replication fork (RF) DNA substrates (PubMed:26578604). {ECO:0000269|PubMed:19020614, ECO:0000269|PubMed:26578604, ECO:0000269|PubMed:26682650, ECO:0000269|PubMed:28049850}.
Molecular Weight:	102.9 kDa
UniProt:	Q17RS7
Pathways:	DNA Damage Repair

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.

Application Details

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

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