Datasheet for ABIN3094398

PARP3 Protein (AA 1-533) (Strep Tag)

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1 Image

Overview

Quantity:	1 mg
Target:	PARP3
Protein Characteristics:	AA 1-533
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PARP3 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MAPKPKPWVQ TEGPEKKKGR QAGREEDPFR STAEALKAIP AEKRIIRVDP TCPLSSNPGT QVYEDYNCTL NQTNIENNNN KFYIIQLLQD SNRFFTCWNR WGRVGEVGQS KINHFTRLED AKKDFEKKFR EKTKNNWAER DHFVSHPGKY TLIEVQAEDE AQEAVVKVDR GPVRTVTKRV QPCSLDPATQ KLITNIFSKE MFKNTMALMD LDVKKMPLGK LSKQQIARGF EALEALEEAL KGPTDGGQSL EELSSHFYTV IPHNFGHSQP PPINSPELLQ AKKDMLLVLA DIELAQALQA VSEQEKTVEE VPHPLDRDYQ LLKCQLQLLD SGAPEYKVIQ TYLEQTGSNH RCPTLQHIWK VNQEGEEDRF QAHSKLGNRK LLWHGTNMAV VAAILTSGLR IMPHSGGRVG KGIYFASENS KSAGYVIGMK CGAHHVGYMF LGEVALGREH HINTDNPSLK SPPPGFDSVI ARGHTEPDPT QDTELELDGQ QVVVPQGQPV PCPEFSSSTF SQSEYLIYQE SQCRLRYLLE VHL **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.**

Product Details

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.
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

Product Details

	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:	PARP3
Alternative Name:	PARP3 (PARP3 Products)
Background:	Protein mono-ADP-ribosyltransferase PARP3 (EC 2.4.2.-) (ADP-ribosyltransferase diphtheria toxin-like 3) (ARTD3) (DNA ADP-ribosyltransferase PARP3) (EC 2.4.2.-) (IRT1) (NAD(+) ADP-ribosyltransferase 3) (ADPRT-3) (Poly [ADP-ribose] polymerase 3) (PARP-3) (hPARP-3) (Poly[ADP-ribose] synthase 3) (pADPRT-3),FUNCTION: Mono-ADP-ribosyltransferase that mediates mono-ADP-ribosylation of target proteins and plays a key role in the response to DNA damage (PubMed:16924674, PubMed:20064938, PubMed:21211721, PubMed:21270334, PubMed:25043379, PubMed:24598253, PubMed:28447610, PubMed:19354255, PubMed:23742272). Mediates mono-ADP-ribosylation of glutamate, aspartate or lysine residues on target proteins (PubMed:20064938, PubMed:25043379). In contrast to PARP1 and PARP2, it is not able to mediate poly-ADP-ribosylation (PubMed:25043379). Involved in DNA repair by mediating mono-ADP-ribosylation of a limited number of acceptor proteins involved in chromatin architecture and in DNA metabolism, such as histone H2B, XRCC5 and XRCC6 (PubMed:16924674, PubMed:24598253). ADP-ribosylation follows DNA damage and appears as an obligatory step in a detection/signaling pathway leading to the reparation of DNA strand breaks (PubMed:16924674, PubMed:21211721, PubMed:21270334). Involved in single-strand break repair by catalyzing mono-ADP-ribosylation of histone H2B on 'Glu-2' (H2BE2ADPr) of nucleosomes containing nicked DNA (PubMed:27530147). Cooperates with the XRCC5-XRCC6 (Ku80-Ku70) heterodimer to limit end-resection thereby promoting accurate NHEJ (PubMed:24598253). Suppresses G-quadruplex (G4) structures in response to DNA damage (PubMed:28447610). Associates with a number of DNA repair factors and is involved in the response to exogenous and endogenous DNA strand breaks (PubMed:16924674, PubMed:21211721, PubMed:21270334). Together with APLF, promotes the retention of the LIG4-XRCC4 complex on chromatin and accelerate DNA ligation during non-homologous end-joining (NHEJ) (PubMed:21211721). May link the DNA damage surveillance network to the mitotic fidelity checkpoint (PubMed:16924674). Acts as a negative regulator of immunoglobulin

Target Details

	class switch recombination, probably by controlling the level of AICDA /AID on the chromatin (By similarity). In addition to proteins, also able to ADP-ribosylate DNA: mediates DNA mono-ADP-ribosylation of DNA strand break termini via covalent addition of a single ADP-ribose moiety to a 5'- or 3'-terminal phosphate residues in DNA containing multiple strand breaks (PubMed:29361132, PubMed:29520010). {ECO:0000250|UniProtKB:Q3ULW8, ECO:0000269|PubMed:16924674, ECO:0000269|PubMed:19354255, ECO:0000269|PubMed:20064938, ECO:0000269|PubMed:21211721, ECO:0000269|PubMed:21270334, ECO:0000269|PubMed:23742272, ECO:0000269|PubMed:24598253, ECO:0000269|PubMed:25043379, ECO:0000269|PubMed:27530147, ECO:0000269|PubMed:28447610, ECO:0000269|PubMed:29361132, ECO:0000269|PubMed:29520010}.
Molecular Weight:	60.1 kDa
UniProt:	Q9Y6F1

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,

Handling

	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

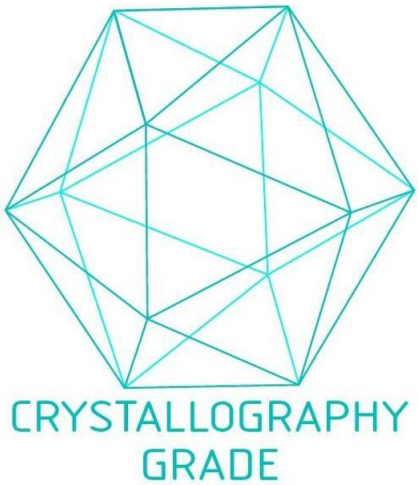

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process