Datasheet for ABIN3132146

PARP2 Protein (AA 1-559) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	PARP2
Protein Characteristics:	AA 1-559
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PARP2 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MAPRRQRSGS GRRVLNEAKK VDNGNKATED DSPPGKKMRT CQRKGPMAGG KDADRTKDNR DSVKTLLLKG KAPVDPECAA KLGKAHVYCE GDDVYDVMLN QTNLQFNNNK YYLIQLLEDD AQRNFSVWMR WGRVGKTGQH SLVTCSGDLN KAKEIFQKKF LDKTKNNWED RENFEKVPGK YDMLQMDYAA STQDESKTKE EETLKPESQL DLRVQELLKL ICNVQTMEEM MIEMKYDTKR APLGKLTVAQ IKAGYQSLKK IEDCIRAGQH GRALVEACNE FYTRIPHDFG LSIPPVIRTE KELSDKVKLL EALGDIEIAL KLVKSERQGL EHPLDQHYRN LHCALRPLDH ESNEFKVISQ YLQSTHAPTH KDYTMTLLDV FEVEKEGEKE AFREDLPNRM LLWHGSRLSN WVGILSHGLR VAPPEAPITG YMFGKGIYFA DMSSKSANYC FASRLKNTGL LLLSEVALGQ CNELLEANPK AQGLLRGKHS TKGMGKMAPS PAHFITLNGS TVPLGPASDT GILNPEGYTL NYNEFIVYSP NQVRMRYLLK IQFNFLQLW **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).
Grade:	custom-made

Target Details

Target:	PARP2
Alternative Name:	Parp2 (PARP2 Products)
Background:	Poly [ADP-ribose] polymerase 2 (PARP-2) (mPARP-2) (EC 2.4.2.30) (ADP-ribosyltransferase diphtheria toxin-like 2) (ARTD2) (DNA ADP-ribosyltransferase PARP2) (EC 2.4.2.-) (NAD(+) ADP-ribosyltransferase 2) (ADPRT-2) (Poly[ADP-ribose] synthase 2) (pADPRT-2) (Protein poly-ADP-ribosyltransferase PARP2) (EC 2.4.2.-),FUNCTION: Poly-ADP-ribosyltransferase that mediates poly-ADP-ribosylation of proteins and plays a key role in DNA repair (PubMed:10364231, PubMed:12065591). Mediates glutamate, aspartate or serine ADP-ribosylation of proteins: the ADP-D-ribosyl group of NAD(+) is transferred to the acceptor carboxyl group of target residues and further ADP-ribosyl groups are transferred to the 2'-position of the terminal adenosine moiety, building up a polymer with an average chain length of 20-30 units (PubMed:12065591). Serine ADP-ribosylation of proteins constitutes the primary form of ADP-ribosylation of proteins in response to DNA damage (By similarity). Mediates glutamate and aspartate ADP-ribosylation of target proteins in absence of HPF1 (By similarity). Following interaction with HPF1, catalyzes serine ADP-ribosylation of target proteins, HPF1 conferring serine specificity by completing the PARP2 active site (By similarity). PARP2 initiates the repair of double-strand DNA breaks: recognizes and binds DNA breaks within chromatin and recruits HPF1, licensing serine ADP-ribosylation of target proteins, such as histones, thereby promoting decompaction of chromatin and the recruitment of repair factors leading to the reparation of DNA strand breaks (By similarity). HPF1 initiates serine ADP-ribosylation but restricts the polymerase activity of PARP2 in order to limit the length of poly-ADP-ribose chains (By similarity). Specifically mediates formation of branched poly-ADP-ribosylation (By similarity). Branched poly-ADP-ribose chains are specifically recognized by some factors, such as APLF (By similarity). In addition to proteins, also able to ADP-ribosylate DNA: preferentially acts on 5'-terminal phosphates at DNA strand breaks termini in nicked duplex (By similarity). {ECO:0000250|UniProtKB:Q9UGN5, ECO:0000269|PubMed:10364231, ECO:0000269|PubMed:12065591}.
Molecular Weight:	63.4 kDa
UniProt:	O88554
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

Application Details

	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