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Datasheet for ABIN3132832

## PARP1 Protein (AA 2-1013) (His tag)

### 1 Image

#### Overview

Quantity:	1 mg
Target:	PARP1
Protein Characteristics:	AA 2-1013
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PARP1 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

#### Product Details

Sequence: AEASERLYRV QYAKSGRASC KKCSESIPKD SLRMAIMVQS PMFDGKVPWH YHFSCFWKVG  
QSIRHPDVEV DGFSELRWDD QQKVKKTAEA GGVAGKGQDG SGGKAECTLG DFAAEYAKSN  
RSMCKGCLEK IEKGMRLSK KMVDPEKPQL GMIDRWYHPT CFVKKRDELG FRPEYSASQL  
KGFSLLSAED KEALKKQLPA IKNEGKRKGD EVDGTDEVAK KKSRETDKY SKLEKALKAQ  
NELIWNKDE LKKACSTNDL KELLIFNQQQ VPSGESAILD RVADGMAFGA LLPCKECSGQ  
LVFKSDAYYC TGDVTAWTKC MVKTQNPGRK EWWTPKEFRE ISYLKLLKVK KQDRIFPPES  
SAPITVHWPL SVTSAPTAVN SSAPADKPLS NMKILTLGKL SQNKDEAKAV IEKLGKLTG  
SANKASLCIS IKKEVEKMNK KMEEVKEANI RVVSEDFLQD VSASTKSLQD LLSAHSLSPW  
GAEVKAEPGE VVAPRGKSA PSKSKGCFK EEGVKNSEKR MKLTLKGGAA VDPDGLGLEHS  
AHVLEKGGKV FSATLGLVDI VKGTNSYYKL QLLEDDKESR YWIFRSWGRL GTVIGSNKLE  
QMPSKEEAVE QFMKLYEEKT GNAWHSKNFT KYPKIFYPLE IDYQQDEEAV KKLTVKPGTK  
SKLKPVPQEL VGMIFDVDSM KKALVEYEID LQKMPLGKLS RRQQAAYSI LSEVQQPVSQ

GSSSEQILDL SNRFYTLIPH DFGMKKPLL NNADSVQAKV EMLDNLLDIE VAYSLLRGGS  
DDSSKDPIDV NYEKLKTDIK VVDRDSEAE VIRKYVKNTN ATTHNAYDLE VIDIFKIERE  
GESQRYKPFR QLHNRLLWH GSRTTNFAGI LSQGLRIAPP EAPVTGYMFG KGIYFADMVS  
KSANYCHTSQ GDPIGLIMLG EVALGNMYEL KHASHISKLP KGKHSVKGLG KTTDPDSASI  
TLEGVEVPLG TGIPSGVNDT ALLYNEYIVY DIAQVNLKYL LKLKFNFKTS LW

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse Parp1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protParam tool to determine the absorption coefficient of each protein.

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### Purification:

Two step purification of proteins expressed in baculovirus infected SF9 insect cells:

1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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.

## Product Details

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Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

## Target Details

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Target:	PARP1
Alternative Name:	Parp1 ( <a href="#">PARP1 Products</a> )
Background:	<p>Positively regulates the transcription of MTUS1 and negatively regulates the transcription of MTUS2/TIP150. With EEF1A1 and TXK, forms a complex that acts as a T-helper 1 (Th1) cell-specific transcription factor and binds the promoter of IFN-gamma to directly regulate its transcription, and is thus involved importantly in Th1 cytokine production (By similarity). Involved in the base excision repair (BER) pathway, by catalyzing the poly(ADP-ribosyl)ation of a limited number of acceptor proteins involved in chromatin architecture and in DNA metabolism. This modification follows DNA damages and appears as an obligatory step in a detection/signaling pathway leading to the reparation of DNA strand breaks. Mediates the poly(ADP-ribosyl)ation of APLF and CHFR. Required for PARP9 and DTX3L recruitment to DNA damage sites. PARP1-dependent PARP9-DTX3L-mediated ubiquitination promotes the rapid and specific recruitment of 53BP1/TP53BP1, UIMC1/RAP80, and BRCA1 to DNA damage sites (By similarity). {ECO:0000250}.</p>
Molecular Weight:	113.9 kDa Including tag.
UniProt:	<a href="#">P11103</a>
Pathways:	<a href="#">Apoptosis</a> , <a href="#">Caspase Cascade in Apoptosis</a> , <a href="#">DNA Damage Repair</a> , <a href="#">Production of Molecular Mediator of Immune Response</a> , <a href="#">Maintenance of Protein Location</a>

## Application Details

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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:	Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible

## Application Details

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options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

## Handling

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Format: Liquid

Buffer: 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)

## Images

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