Recombinant Human Poly (ADP-ribose) Polymerase 1

Cat. No. PARP1-496H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human PARP1 protein was expressed in*E.coli*and purified by using conventional chromatography techniques, 39.6 kDa (354aa).
Species	Human
Source	E.coli
Description	PARP1 is a nuclear DNA-binding zinc finger protein which can exist as a homo- or hetero-dimer, and is strongly activated by DNA strand breaks. This protein involved in chromatin architecture and DNA metabolism, and participates in protein modification to enhance or repress transcription. PARP1 also plays a role in other cellular processes, including cell proliferation and differentiation. PARP-1 deficiencies lead to chromosomal instability due to higher frequencies of chromosome fusions and aneuploidy, suggesting that poly(ADPribosyl)ation contributes to the efficient maintenance of genome integrity.
Sequences Of Amino Acids	MKSKLPKPVQ DLIKMIFDVE SMKKAMVEYE IDLQKMPLGK LSKRQIQAAY SILSEVQQAV SQGSSDSQIL DLSNRFYTLI PHDFGMKKPP LLNNADSVQA KAEMLDNLLD IEVAYSLLRG GSDDSSKDPI DVNYEKLKTD IKVVDRDSEE AEIIRKYVKN THATTHNAYD LEVIDIFKIE REGECQRYKP FKQLHNRRLL WHGSRTTNFA GILSQGLRIA PPEAPVTGYM FGKGIYFADM VSKSANYCHT SQGDPIGLIL LGEVALGNMY ELKHASHISK LPKGKHSVKG LGKTTPDPSA NISLDGVDVP LGTGISSGVN DTSLLYNEYI VYDIAQVNLK YLLKLKFNFK TSLW.

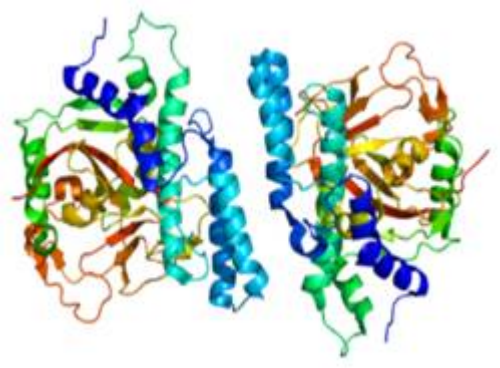
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Formulation	Liquid. In 20mM Tris buffer(pH 8.0) containing 10% glycerol 1mM DTT.
Purity	> 95% by SDS – PAGE.
Concentration	1 mg/ml (determined by Bradford assay).
Storage	Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.
Pathways	Base excision repair

GENE INFORMATION

Gene Name	PARP1 poly (ADP-ribose) polymerase 1 [Homo sapiens]
Synonyms	PARP1; poly (ADP-ribose) polymerase 1; PARP; PPOL; ADPRT; ADPRT1; PARP-1; pADPRT-1; PARP1; poly (ADP-ribose) polymerase family, member 1; poly(ADP-ribose) polymerase; poly(ADP-ribose) synthetase; poly(ADP-ribosyl)transferase; ADP-ribosyltransferase NAD(+); ADP-ribosyltransferase (NAD+; poly (ADP-ribose) polymerase); NAD(+) ADP-ribosyltransferase 1; Poly[ADP-ribose] synthetase 1; EC 2.4.2.30
Gene ID	142
mRNA Refseq	NM_001618
Protein Refseq	NP_001609
MIM	173870
UniProt ID	P09874

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Chromosome Location	1q41-q42
Function	DNA binding; NAD or NADH binding; NAD+ ADP-ribosyltransferase activity; identical protein binding; metal ion binding; protein N-terminus binding; protein binding; transcription factor binding; transferase activity, transferring glycosyl groups; zinc ion binding
PDB rendering based on 1uk0	

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