

## Active Recombinant Human PARP1, MYC-tagged

Cat. No. PARP1-444H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Human PARP-1 [ARTD1] (aa 656-1014) is fused to a MYC and His-tag.
<b>Species</b>	Human
<b>Source</b>	Sf21 Cells
<b>ProteinLength</b>	656-1014 a.a.
<b>Description</b>	<p>PARP-1 (ARTD1) is 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. PARP-1 positively regulates the transcription of MTUS1 and negatively regulates the transcription of MTUS2/TIP150. It forms a complex with EEF1A1 and TXK that acts as a T-helper 1 (Th1) cell-specific transcription factor and binds the promoter of IFN-<math>\gamma</math> to directly regulate its transcription, and is thus involved importantly in Th1 cytokine production.</p>
<b>Form</b>	Liquid. In 50mM TRIS-HCl, pH 7.5, containing 300mM sodium chloride, 250mM imidazole, 2mM $\beta$ -mercaptoethanol, 0.2% NP-40 and 10% glycerol.
<b>Bio-activity</b>	~50ng are required for poly(ADP-ribose) formation.
<b>Purity</b>	$\geq$ 90% (SDS-PAGE)

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<b>Stability</b>	Stable for at least 6 months after receipt when stored at -80°C.
<b>Storage</b>	Short Term Storage: -20°C; Long Term Storage: -80°C. After opening, prepare aliquots and store at -80°C. Avoid freeze/thaw cycles.
<b>Concentration</b>	Lot dependent (0.2-1.5mg/ml)
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	PARP1 poly (ADP-ribose) polymerase 1 [ Homo sapiens ]
<b>Official Symbol</b>	PARP1
<b>Synonyms</b>	PARP1; poly (ADP-ribose) polymerase 1; ADP ribosyltransferase (NAD+; poly (ADP ribose) polymerase) , ADPRT, poly (ADP ribose) polymerase family, member 1 , PPOL; poly [ADP-ribose] polymerase 1; PARP; poly(ADP-ribose) polymerase; poly(ADP-ribose) synthetase; poly[ADP-ribose] synthase 1; poly(ADP-ribosyl)transferase; ADP-ribosyltransferase NAD(+); NAD(+) ADP-ribosyltransferase 1; poly (ADP-ribose) polymerase family, member 1; ADP-ribosyltransferase (NAD+; poly (ADP-ribose) polymerase); PPOL; ADPRT; ADPRT1; PARP-1; ADPRT 1; pADPRT-1;
<b>Gene ID</b>	142
<b>mRNA Refseq</b>	NM_001618
<b>Protein Refseq</b>	NP_001609
<b>MIM</b>	173870
<b>UniProt ID</b>	P09874

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<b>Chromosome Location</b>	1q41-q42
<b>Pathway</b>	BER complex, organism-specific biosystem; BER complex, conserved biosystem; Base excision repair, organism-specific biosystem; Base excision repair, conserved biosystem; Caspase cascade in apoptosis, organism-specific biosystem; FAS pathway and Stress induction of HSP regulation, organism-specific biosystem; Notch-mediated HES/HEY network, organism-specific biosystem;
<b>Function</b>	DNA binding; NAD binding; NAD+ ADP-ribosyltransferase activity; metal ion binding; protein N-terminus binding; protein binding; transcription factor binding; transferase activity, transferring glycosyl groups; zinc ion binding;

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