

Active Recombinant Human PARP1, MYC-tagged

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

SPECIFICATION

Product Overview	Human PARP-1 [ARTD1] (aa 656-1014) is fused to a MYC and His-tag.
Species	Human
Source	Sf21 Cells
ProteinLength	656-1014 a.a.
Description	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- γ to directly regulate its transcription, and is thus involved importantly in Th1 cytokine production.
Form	Liquid. In 50mM TRIS-HCl, pH 7.5, containing 300mM sodium chloride, 250mM imidazole, 2mM β -mercaptoethanol, 0.2% NP-40 and 10% glycerol.
Bio-activity	~50ng are required for poly(ADP-ribose) formation.
Purity	$\geq 90\%$ (SDS-PAGE)

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

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Chromosome Location	1q41-q42
Pathway	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;
Function	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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