

Product datasheet for **TA384932**

PARP1 Rabbit Monoclonal Antibody [Clone ID: R02-2C6]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R02-2C6
Applications:	WB
Recommended Dilution:	WB: 1/1000
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide of human Cleaved PARP1 (Cleaved)
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 113 kDa; Observed MW: 89 kDa
Gene Name:	poly(ADP-ribose) polymerase 1
Database Link:	Entrez Gene 142 Human P09874



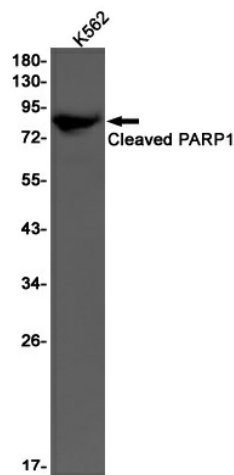
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Background:

Swiss-Prot Acc.P09874. 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 (PubMed:17177976, PubMed:18172500, PubMed:19344625, PubMed:19661379, PubMed:23230272). Mediates the poly(ADP-ribosyl)ation of APLF and CHFR (PubMed:17396150). 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 (PubMed:17177976). Required for PARP9 and DTX3L recruitment to DNA damage sites (PubMed:23230272). PARP1-dependent PARP9-DTX3L-mediated ubiquitination promotes the rapid and specific recruitment of 53BP1/TP53BP1, UIMC1/RAP80, and BRCA1 to DNA damage sites (PubMed:23230272). Mediates serine ADP-ribosylation of target proteins following interaction with HPF1; HPF1 conferring serine specificity (PubMed:28190768). Mediates the poly(ADP-ribosyl)ation of histones in a HPF1-dependent manner (PubMed:27067600). Involved in the synthesis of ATP in the nucleus, together with NMNAT1, PARG and NUDT5 (PubMed:27257257). Nuclear ATP generation is required for extensive chromatin remodeling events that are energy-consuming (PubMed:27257257).

Synonyms:

ADPRT; ADPRT1; pADPRT-1; PARP; PARP-1; poly(ADP-ribosyl)transferase; PPOL

Product images:

Western blot analysis of Cleaved- PARP1 in K562 lysates using Cleaved-PARP1 antibody.