

Product Datasheet

PARP1 (10C2) Mouse mAb

Catalog No: AB3452

Reactivity: Human

Isotype: Mouse IgG1

Applications: WB,IHC



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Information

UniProt ID: P09874

All Names: PARP-1, Poly(ADP ribose) polymerase 1, sPARP1,ADPRT1, ADP ribosyltransferase NAD(+)

Form: Liquid

Storage instructions: Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

Storage buffer: pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.

Purity: Affinity-chromatography

Immunogen: A synthesized peptide

Molecular Wt.: 116kDa

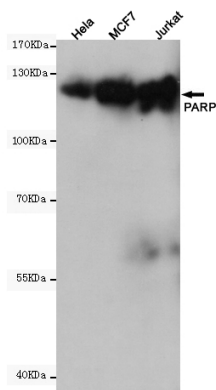
Application

WB: 1/500-1/2000

IHC: 1/100-1/500

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).



Western blot analysis of extracts from HeLa, MCF7 and Jurkat cell lysates using PARP (10C2) Mouse mAb (1:2000 diluted). Predicted band size: 116,

89KDa.Observed band size:116KDa.

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