SunLong Biotech Co.,LTD
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[Marker Primary Antibody]

Rabbit Anti-PARP1/Biotin Conjugated antibody

Catalog Number: SL20763R-Bio

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-PARP1/Biotin
Immunogen:	KLH conjugated synthetic peptide derived from human PARP1
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	WB=1:500-2000 IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 Flow-Cyt=2ug/Test ICC/IF=1:100 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse,Rat(predicted:Pig,Cow,Rabbit,Sheep)
Background:	background: This gene encodes a chromatin-associated enzyme, poly(ADP-ribosyl)transferase, which modifies various nuclear proteins by poly(ADP-ribosyl)ation. The modification is dependent on DNA and is involved in the regulation of various important cellular processes such as differentiation, proliferation, and tumor transformation and also in the regulation of the molecular events involved in the recovery of cell from DNA damage. In addition, this enzyme may be the site of mutation in Fanconi anemia, and may participate in the pathophysiology of type I diabetes. [provided by RefSeq, Jul 2008]. **Function:** Involved in the base excision repair (BER) pathway, by catalyzing

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	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. Mediates the poly(ADP-ribosyl)ation of APLF and CHFR. 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. **Subunit:** Component of a base excision repair (BER) complex, containing at least XRCC1, PARP2, POLB and LRIG3. Homo- and heterodimer with PARP2. Interacts with PARP3, APTX and SRY. The SWAP complex consists of NPM1, NCL, PARP1 and SWAP70. Interacts with TIAM2 and ZNF423 (By similarity). Interacts (when poly-ADP-ribosylated) with CHD1L. Interacts with the DNA polymerase alpha catalytic subunit POLA1; this interaction functions as part of the control of replication fork progression. Interacts with EEF1A1, RNF4 and TXK. **Subcellular Location:** Mitochondrion outer membrane; Single-pass membrane protein. Nucleus membrane; Single-pass membrane protein. Endoplasmic reticulum membrane; Single-pass membrane protein. Nucleus. **Post-translational modifications:** Phosphorylated by PRKDC and TXK. Phosphorylated upon DNA damage, probably by ATM or ATR. Poly-ADP-ribosylated by PARP2. Poly-ADP-ribosylation mediates the recruitment of CHD1L to DNA damage sites. S-nitrosylated, leading to inhibit transcription regulation activity. **Similarity:** Contains 1 BRCT domain. Contains 1 PARP alpha-helical domain. Contains 1 PARP catalytic domain. Contains 2 PARP-type zinc fingers. **Database links:** **Entrez Gene:** 142 Human **Entrez Gene:** 11545 Mouse **Entrez Gene:** 25591 Rat Omim: 173870 Human **SwissProt:** P09874 Human **SwissProt:** P11103 Mouse **SwissProt:** P27008 Rat

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	Unigene: 177766 Human **Unigene:** 277779 Mouse **Unigene:** 11327 Rat Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. PARP (poly ADP-ribose polymerase/PARP-type 1) is a DNA repair enzyme. PARP is a cleavage substrate of caspase, a core member of apoptosis. Therefore, it plays an important role in DNA damage repair and apoptosis. Anti-PARP p85 is a specific antibody against the PARP p85 fragment, which is generated by caspase cleavage of the 116 kDa intact molecule. PARP is a multifunctional post-translational modification enzyme present in most eukaryotic cells. It is activated by recognizing structurally damaged DNA fragments and performs poly ADP-ribosylation on poly ADP-ribose polymerase. PARP is considered a sensor of DNA damage. It can also perform poly ADP-ribosylation on many nuclear proteins. Therefore, it plays an important role in DNA damage repair and apoptosis, and the end-anchoring polymerase plays an important role in the regulatory mechanism of telomere structure in cancer cells.