SunLong Biotech Co.,LTD
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Rabbit Anti-PARP1 antibody

SL55164R

Product Name	**[KO validated anti]** PARP1
Chinese Name	多腺苷二磷酸多聚酶抗体
Alias	ADP ribosyltransferase (NAD+; poly (ADP ribose) polymerase); ADP ribosyltransferase NAD+; ADPRT 1; ADPRT; ADPRT1; msPARP; NAD(+) ADP ribosyltransferase 1; pADPRT 1; pADPRT1; PARP 1; PARP1; Poly (ADP ribose) polymerase 1; poly (ADP ribose) polymerase family, member 1; Poly adenosine diphosphate ADP ribose polymerase; Poly ADP ribose polymerase 1; Poly ADP ribose polymerase family member 1; Poly ADP ribose synthetase 1; poly(ADP ribose) synthetase; poly(ADP ribosyl)transferase; Poly[ADP ribose] synthetase 1; PPOL; sPARP 1; sPARP1; PARP1_HUMAN.
Research Area	Chromatin and nuclear signals Apoptosis
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse,Rat
Applications	WB=1:500-2000,ICC/IF=1:50-200,ELISA=1:5000-10000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	113kDa
Cellular localization	The nucleus
Form	Liquid
Concentration	1mg/ml
immunogen	Recombinant human PARP1: 81-390/1014
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
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.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
PubMed	PubMed
Product Detail	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 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.

SWISS:
P09874

Gene ID:
142

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

Unigene: 177766 Human

Unigene: 277779 Mouse

Unigene: 11327 Rat

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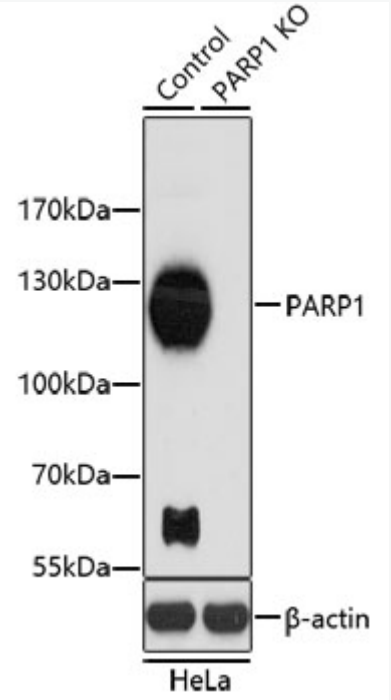
PARP(poly ADP-ribose polymerase)是 DNA 修复酶。
PARP 是 Apoptosis 核心成员半胱胺酸蛋白酶(caspase)的切割底物。因此,它在 DNA 损伤修复与 Apoptosis 中发挥着重要作用。Anti-PARP p85 是特意的 PARPp85 片段的特异抗体，由 caspase 剪切 116kDa 完整分子而得到的。
PARP 是存在于多数真核细胞中的一个多功能蛋白质翻译后修饰酶。它通过识别结构损伤的 DNA 片段而被激活，对聚腺苷二磷酸核糖聚合酶 PARP 被认为是 DNA 损伤的感受器。它还能对许多核蛋白进行聚腺苷二磷酸核糖基化。因此，在 DNA 损伤修复与 Apoptosis 中发挥着重要作用，端锚聚合酶在癌细胞端粒结构的调控机制中有重要作用

Product Picture



Sample:

Lane 1: Hela (Human) Cell Lysate at 25 ug

Lane 2: PARP1 knockout (KO) Hela (Human) Cell Lysate at 25 ug

Primary: Anti-PARP1 (SL55164R) at 1/1000 dilution

Secondary: HRP Goat Anti-Rabbit IgG (H+L) at 1:10000 dilution

Predicted band size: 110 kD

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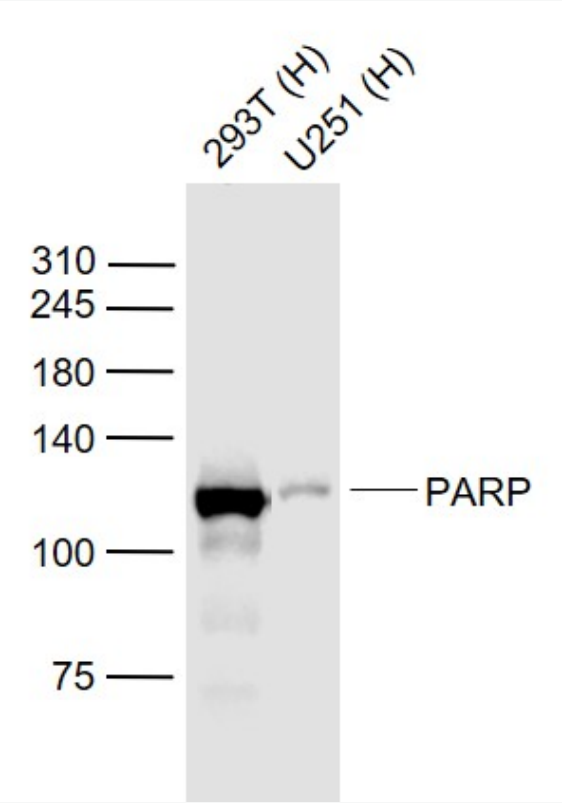
Observed band size: 110 kD



Sample:

Lane 1: 293T (Human) Cell Lysate at 30 ug

Lane 2: U251 (Human) Cell Lysate at 30 ug

Primary: Anti-PARP (SL55164R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 110 kD

Observed band size: 110 kD

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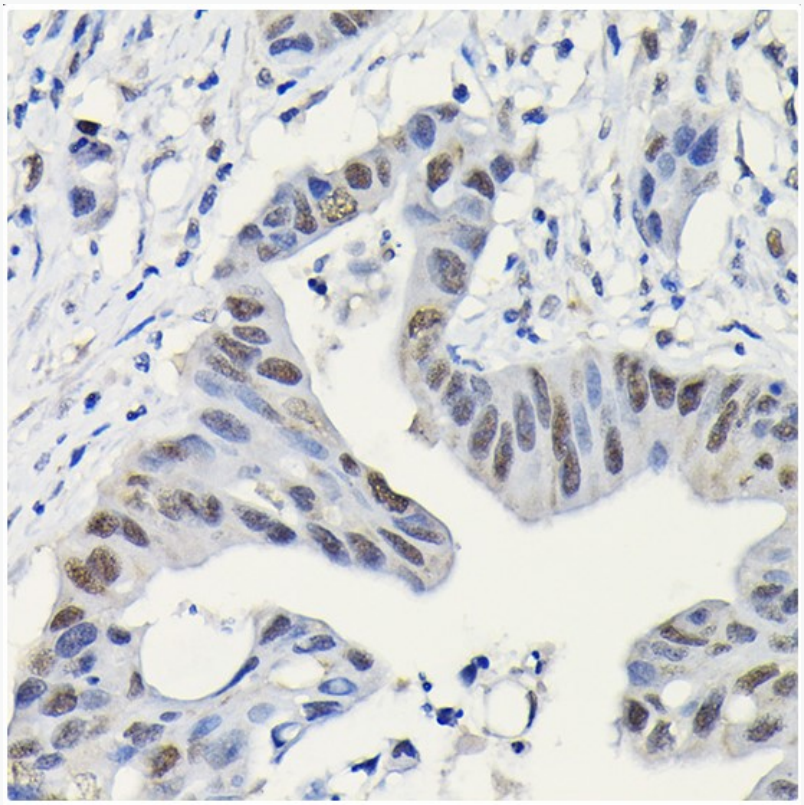

Paraformaldehyde-fixed, paraffin embedded (human colon carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PARP) Polyclonal Antibody, Unconjugated (SL55164R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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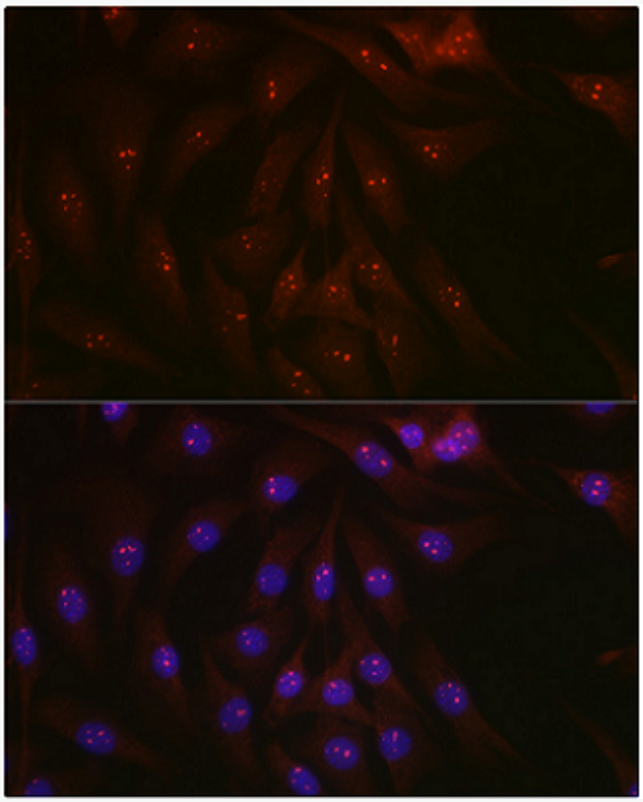

NIH/3T3 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (KO Validated)PARP polyclonal Antibody, Unconjugated (SL55164R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

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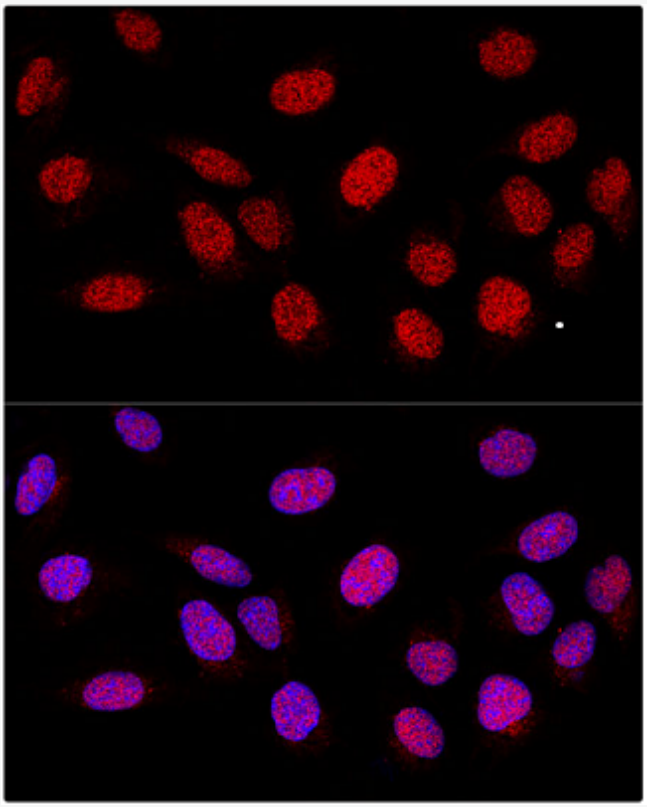

U2-OS cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (KO Validated)PARP polyclonal Antibody, Unconjugated (SL55164R) 1:200, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

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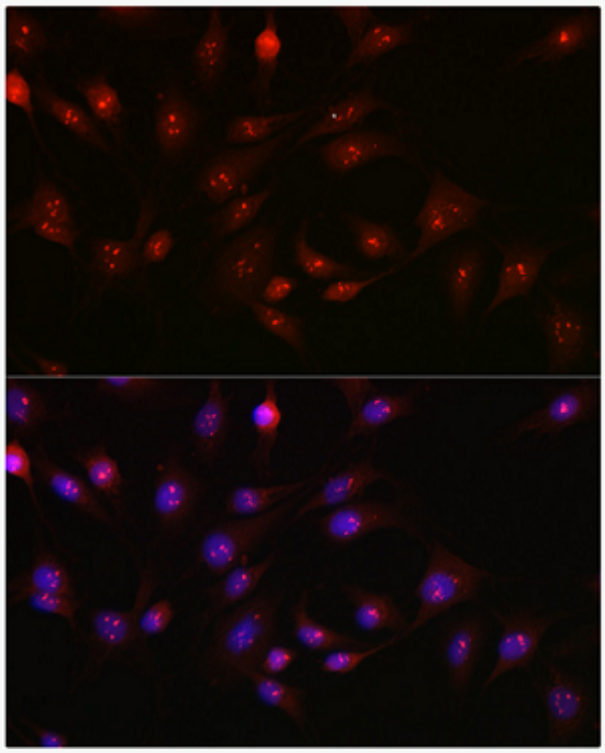

C6 cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (KO Validated)PARP polyclonal Antibody, Unconjugated (SL55164R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

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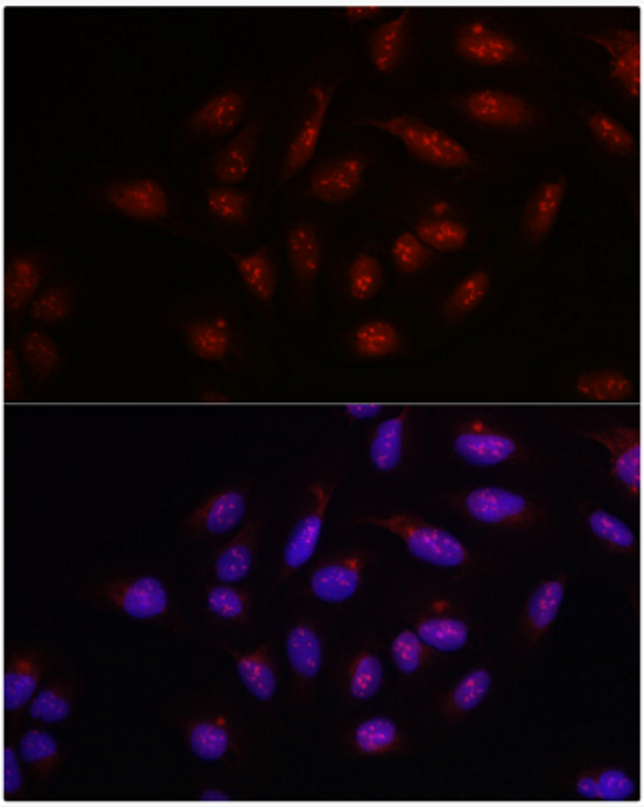

U2-OS cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (KO Validated)PARP polyclonal Antibody, Unconjugated (SL55164R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.