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# PARP1 Polyclonal antibody

Catalog Number:22999-1-AP Featured Product 7 Publications

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## Basic Information

Catalog Number:
22999-1-AP

Size:
600 μg/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG19173

GenBank Accession Number:
BC037545

GeneID (NCBI):
142

UNIPROT ID:
P09874

Full Name:
poly (ADP-ribose) polymerase 1

Calculated MW:
1014 aa, 113 kDa

Observed MW:
113-116 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:2000-1:16000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:50-1:500
IF/ICC 1:50-1:500

## Applications

Tested Applications:
WB, IHC, IF/ICC, FC (Intra), IP, ELISA

Cited Applications:
WB

Species Specificity:
human, mouse

Cited Species:
human, rat

***Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0***

Positive Controls:

WB : HEK-293 cells, Jurkat cells, K-562 cells

IP : K-562 cells,

IHC : human lung cancer tissue, human breast cancer tissue

IF/ICC : Neuro-2a cells,

## Background Information

PARP1 (poly(ADP-ribose) polymerase 1) is a nuclear enzyme catalyzing the poly(ADP-ribosyl)ation of many key proteins in vivo. The normal function of PARP1 is the routine repair of DNA damage. Activated by DNA strand breaks, the PARP1 is cleaved into an 85 to 89-kDa COOH-terminal fragment and a 24-kDa NH2-terminal peptide by caspases during the apoptotic process. The appearance of PARP fragments is commonly considered as an important biomarker of apoptosis. In addition to caspases, other proteases like calpains, cathepsins, granzymes and matrix metalloproteinases (MMPs) have also been reported to cleave PARP1 and gave rise to fragments ranging from 42-89-kD. This antibody was generated against the N-terminal region of human PARP1 and it recognizes the full-length as well as the cleavage of the PARP1.

## Notable Publications

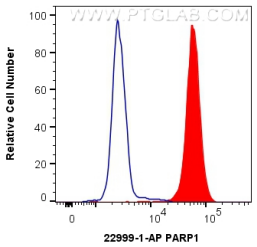
| Author | Pubmed ID | Journal | Application |
|---|---|---|---|
| Mingming Yang | 35648484 | Nucleic Acids Res | WB |
| Yongxiang Zou | 28938551 | Oncotarget | WB |
| Xiaosong Wei | 32194406 | Front Pharmacol | WB |

## Storage

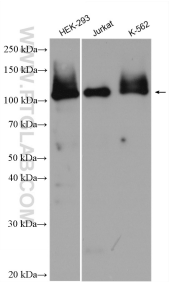
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

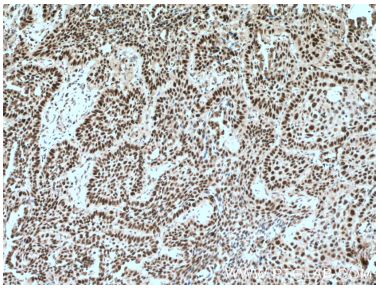
## Selected Validation Data



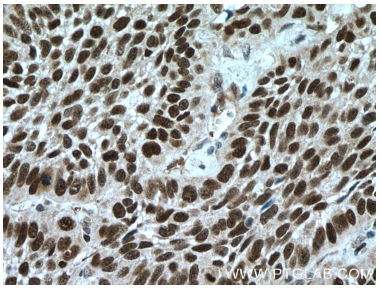

1X10^6 K-562 cells were intracellularly stained with 0.4 ug Anti-Human PARP1 (22999-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Control Antibody. Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).



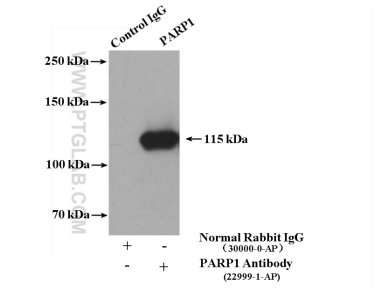

Various lysates were subjected to SDS PAGE followed by western blot with 22999-1-AP (PARP1 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



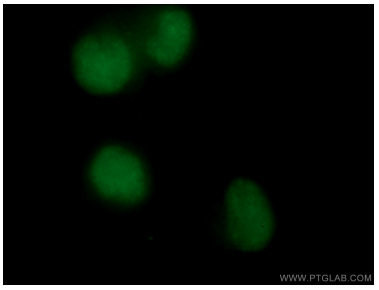
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 22999-1-AP (PARP1 antibody) at dilution of 1:200 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).




Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 22999-1-AP (PARP1 antibody) at dilution of 1:200 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).




IP result of anti-PARP1 (IP:22999-1-AP, 4ug; Detection:22999-1-AP 1:1000) with K-562 cells lysate 3200ug.




Immunofluorescent analysis of (4% PFA) fixed Neuro-2a cells using 22999-1-AP (PARP1 antibody) at dilution of 1:50 and CoraLite488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).