For Research Use Only

PARP1 Monoclonal antibody

Catalog Number:66520-1-Ig Featured Product 104 Publications

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Basic Information

Catalog Number:
66520-1-Ig

Size:
150ul , Concentration: 500 ug/ml by Nanodrop;

Source:
Mouse

Isotype:
IgG1

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, 85-89 kDa

Purification Method:
Protein G purification

CloneNo.:
1D7D4

Recommended Dilutions:
WB 1:5000-1:50000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:100-1:1200
IF/ICC 1:200-1:800

Applications

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

Cited Applications:
WB, IHC, IF, IP, CoIP

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat, chicken, zebrafish

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 : Jurkat cells, RAW 264.7 cells, HeLa cells, HSC-T6 cells, HepG2 cells, ROS1728 cells, NIH/3T3 cells

IP : K-562 cells,

IHC : human lung cancer tissue, mouse colon tissue, mouse testis tissue, human breast cancer tissue, rat colon 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 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 give rise to fragments ranging from 42-89-kDa. 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
Yingjie Qing	34603598	Oxid Med Cell Longev	WB
Pranjal Kumar	36120580	Front Cell Dev Biol	WB
Wei Liao	34776939	Front Pharmacol	WB

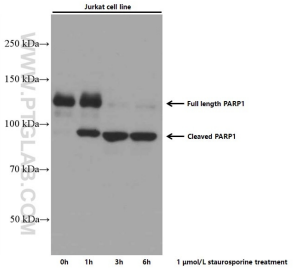
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

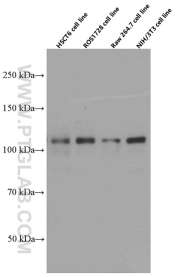
*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

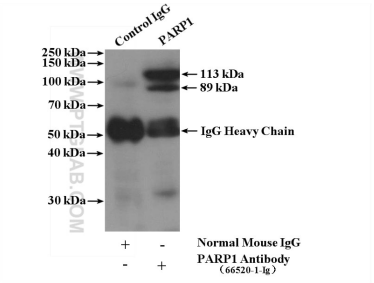
Selected Validation Data



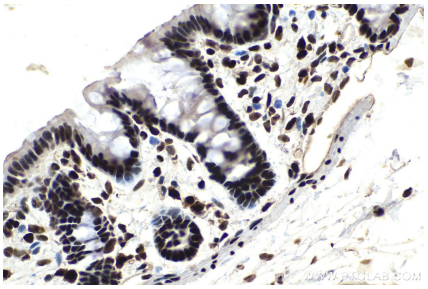
Jurkat cells (20 μg/lane) treated with staurosporine were subjected to SDS PAGE followed by western blot with 66520-1-Ig (PARP1 antibody) at dilution of 1:40000 incubated at room temperature for 1.5 hours.



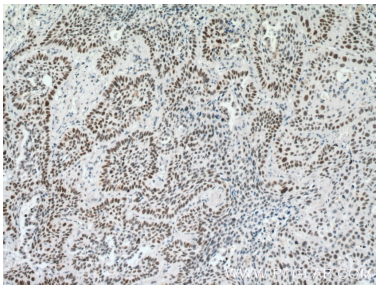
Various lysates were subjected to SDS PAGE followed by western blot with 66520-1-Ig (PARP1 antibody) at dilution of 1:40000 incubated at room temperature for 1.5 hours.



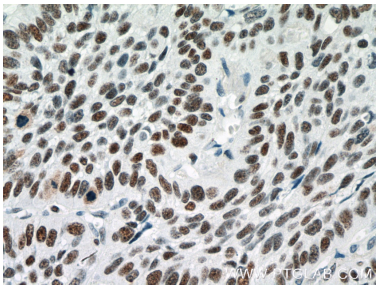
IP result of anti-PARP1 (IP:66520-1-Ig, 5ug; Detection:66520-1-Ig 1:10000) with K-562 cells lysate 2760 ug.



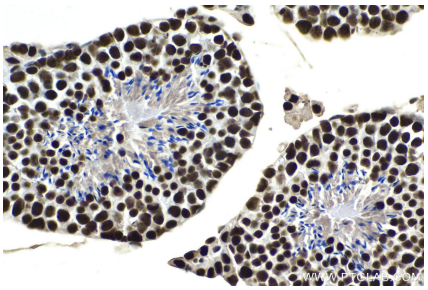
Immunohistochemical analysis of paraffin-embedded rat colon tissue slide using 66520-1-Ig (PARP1 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



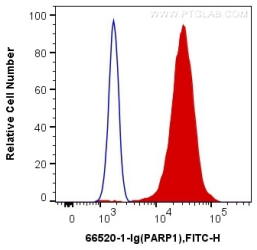
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66520-1-Ig (PARP1 antibody) at dilution of 1:1000 (under 10x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



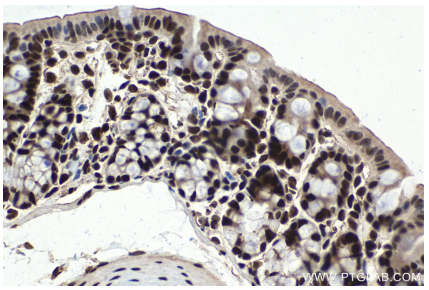
Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using 66520-1-Ig (PARP1 antibody) at dilution of 1:1000 (under 40x lens. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



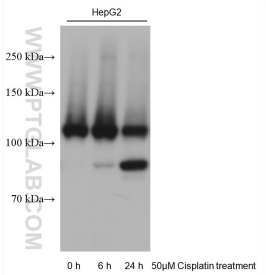
Immunohistochemical analysis of paraffin-embedded mouse testis tissue slide using 66520-1-Ig (PARP1 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

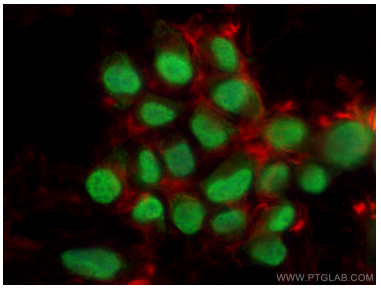


1X10^6 HeLa cells were intracellularly stained with 0.2 ug Anti-Human PARP1 (66520-1-Ig, Clone:1D7D4) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (red), or 0.2 ug Mouse IgG1 Isotype Control (66360-1-Ig, Clone: T1F8D3F10) (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).



Immunohistochemical analysis of paraffin-embedded mouse colon tissue slide using 66520-1-Ig (PARP1 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).





Various lysates were subjected to SDS PAGE followed by western blot with 66520-1-Ig (PARP1 antibody) at dilution of 1:40000 incubated at room temperature for 1.5 hours.

Immunofluorescent analysis of (4% PFA) fixed Neuro-2a cells using PARP1 antibody (66520-1-Ig, Clone: 1D7D4) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) (SA00013-1), CL594-Phalloidin (red).