For Research Use Only

Cleaved PARP1 Monoclonal antibody

Catalog Number:60555-1-Ig 6 Publications

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Basic Information

Catalog Number:
60555-1-Ig

Source:
Mouse

Isotype:
IgG1

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:
89 kDa

Purification Method:
Protein G purification

CloneNo.:
4G4C8

Recommended Dilutions:
WB: 1:5000-1:50000
IHC: 1:1000-1:4000
IF/ICC: 1:500-1:2000
FC (Intra): 0.40 ug per 10^6 cells in a 100 µl suspension

Applications

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

Cited Applications:
WB

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse

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 : A2780 cells, HSC-T6 cells, mouse splenocytes, Staurosporine treated A2780 cells, Staurosporine treated HSC-T6 cells, Staurosporine treated mouse splenocytes

IHC : Jurkat cells,

IF/ICC : 1 µM Staurosporine (3 hours) treated HSC-T6 cells, 1 µM Staurosporine (3 hours) treated HeLa cells

FC (Intra) : 1 µM Staurosporine (3 hours) treated HSC-T6 cells, 1 µM Staurosporine (3 hours) treated HeLa 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 only recognizes the cleaved form of PAPR1 but not full-length PARP1.

Notable Publications

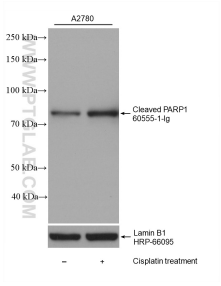
Author	Pubmed ID	Journal	Application
Feifei Wang	40550847	Oncogene	WB
Pengyu Wang	40438398	Front Endocrinol (Lausanne)	WB
Fujie Jia	40081725	Int J Biol Macromol	WB

Storage

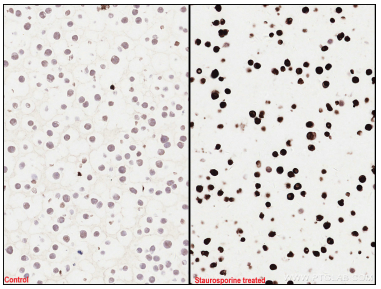
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol, pH7.3
Aliquoting is unnecessary for -20°C storage

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

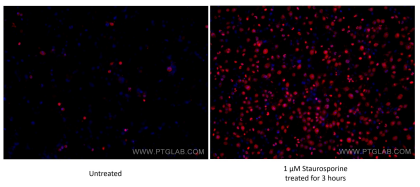
Selected Validation Data



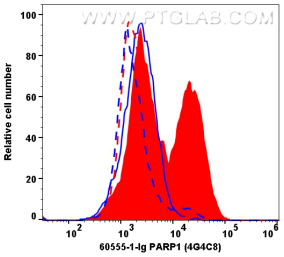
Staurosporine treated and untreated A2780 cells were subjected to SDS PAGE followed by western blot with 60555-1-Ig (Cleaved PARP1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with HRP-conjugated Lamin B1 (HRP-66095) antibody as a loading control.



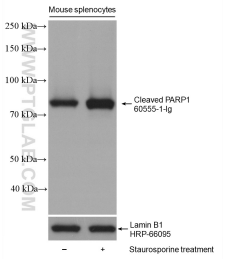
Immunohistochemical analysis of paraffin-embedded Jurkat (left) and Staurosporine treated Jurkat (right) cells slide using 60555-1-Ig (Cleaved PARP1 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



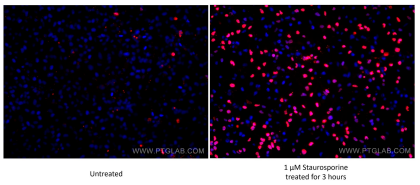
Immunofluorescent analysis of (4% PFA) fixed untreated and 1 μM Staurosporine (3 hours) treated HSC-T6 cells using Cleaved PARP1 antibody (60555-1-Ig, Clone: 4G4C8) at dilution of 1:1000 and Multi-rAb CoraLite® Plus 594-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (Cat.NO. RGAM004).



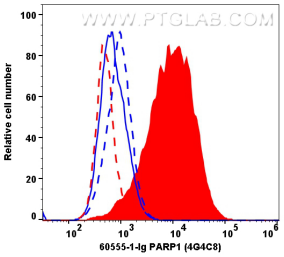
1x10^6 HSC-T6 cell (dash lines) and 1 μM Staurosporine (3 hours) treated HSC-T6 cells (full lines) were intracellularly stained with 0.4 μg Cleaved PARP1 Monoclonal Antibody (60555-1-Ig, Clone:4G4C8, red) and CoraLite® Plus 647-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (Cat.NO.RGAM005). Mouse IgG1 isotype control (66360-1-Ig, Clone: 1F8D3, blue) was parallel stained as control. Cells were fixed with 4% PFA.



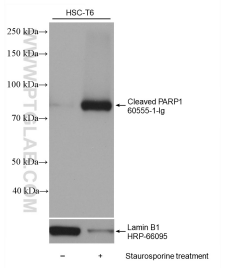
Staurosporine treated and untreated mouse splenocytes were subjected to SDS PAGE followed by western blot with 60555-1-Ig (Cleaved PARP1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with HRP-conjugated Lamin B1 (HRP-66095) antibody as a loading control.



Immunofluorescent analysis of (4% PFA) fixed untreated and 1 μM Staurosporine (3 hours) treated HeLa cells using Cleaved PARP1 antibody (60555-1-Ig, Clone: 4G4C8) at dilution of 1:366 and Multi-rAb CoraLite® Plus 594-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (Cat.NO. RGAM004).



1x10^6 HeLa cell (dash lines) and 1 μM Staurosporine (3 hours) treated HeLa cells (full lines) were intracellularly stained with 0.1 μg Cleaved PARP1 Monoclonal Antibody (60555-1-Ig, Clone:4G4C8, red) and CoraLite® Plus 647-Goat Anti-Mouse Recombinant Secondary Antibody (H+L) (Cat.NO.RGAM005). Mouse IgG1 isotype control (66360-1-Ig, Clone: 1F8D3, blue) was parallel stained as control. Cells were fixed with 4% PFA .



Staurosporine treated and untreated HSC-T6 cells were subjected to SDS PAGE followed by western blot with 60555-1-Ig (Cleaved PARP1 antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours. The membrane was stripped and re-blotted with HRP-conjugated Lamin B1 (HRP-66095) antibody as a loading control.