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Parg Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7283B

Specification

Parg Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q86W56
Other Accession	O88622
Reactivity	**Human**
Predicted	**Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**390-421**

Parg Antibody (C-term) - Additional Information

Gene ID 670;8505

Other Names
Poly(ADP-ribose) glycohydrolase, PARG

Target/Specificity
This Parg antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 390-421 amino acids from the C-terminal region of human Parg.

Dilution
WB~~1:1000
IHC-P~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Parg Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Parg Antibody (C-term) - Protein Information

Name PARG {ECO:0000303|PubMed:14527731, ECO:0000312|HGNC:HGNC:8605}

Function Poly(ADP-ribose) glycohydrolase that degrades poly(ADP- ribose) by hydrolyzing the

ribose-ribose bonds present in poly(ADP- ribose) (PubMed:15450800, PubMed:21892188, PubMed:23102699, PubMed:23474714, PubMed:33186521, PubMed:34321462, PubMed:34019811). PARG acts both as an endo- and exoglycosidase, releasing poly(ADP- ribose) of different length as well as ADP-ribose monomers (PubMed:23102699, PubMed:23481255). It is however unable to cleave the ester bond between the terminal ADP-ribose and ADP-ribosylated residues, leaving proteins that are mono-ADP-ribosylated (PubMed:21892188, PubMed:23474714, PubMed:33186521). Poly(ADP-ribose) is synthesized after DNA damage is only present transiently and is rapidly degraded by PARG (PubMed:23102699, PubMed:34019811). Required to prevent detrimental accumulation of poly(ADP-ribose) upon prolonged replicative stress, while it is not required for recovery from transient replicative stress (PubMed:24906880). Responsible for the prevalence of mono-ADP-ribosylated proteins in cells, thanks to its ability to degrade poly(ADP-ribose) without cleaving the terminal protein-ribose bond (PubMed:33186521). Required for retinoid acid- dependent gene transactivation, probably by removing poly(ADP-ribose) from histone demethylase KDM4D, allowing chromatin derepression at RAR- dependent gene promoters (PubMed:23102699). Involved in the synthesis of ATP in the nucleus, together with PARP1, NMNAT1 and NUDT5 (PubMed:27257257). Nuclear ATP generation is required for extensive chromatin remodeling events that are energy-consuming (PubMed:27257257).

Cellular Location
[Isoform 1]: Nucleus Note=Colocalizes with PCNA at replication foci (PubMed:21398629) Relocalizes to the cytoplasm in response to DNA damage (PubMed:16460818). [Isoform 3]: Cytoplasm [Isoform 5]: Mitochondrion matrix

Tissue Location
Ubiquitously expressed.

Parg Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Parg Antibody (C-term) - Images

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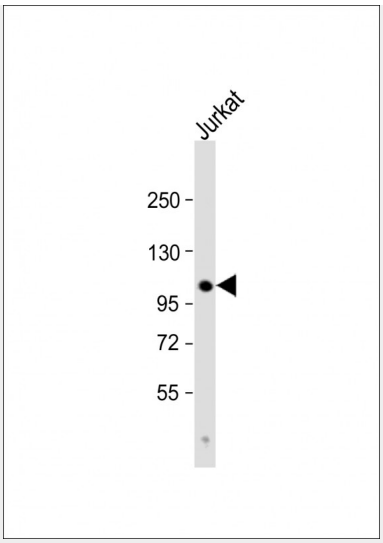
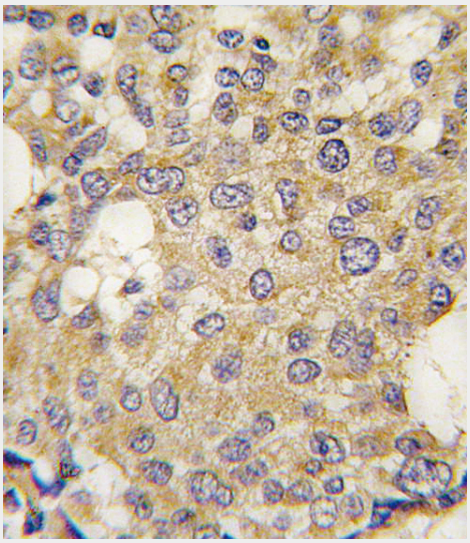


Anti-Parg Antibody (C-term) at 1:1000 dilution + Jurkat whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 109 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with Parg antibody (C-term) (Cat.#AP7283b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Parg Antibody (C-term) - Background

Poly(ADP-ribose) glycohydrolase (PARG) is the major enzyme responsible for the catabolism of poly(ADP-ribose), a reversible covalent-modifier of chromosomal proteins. The protein is found in many tissues and may be subject to proteolysis generating smaller, active products.

Parg Antibody (C-term) - References

Meyer,R.G., Exp. Cell Res. 313 (13), 2920-2936 (2007)
Fisher,A.E., Mol. Cell. Biol. 27 (15), 5597-5605 (2007)
Keil,C., J. Biol. Chem. 281 (45), 34394-34405 (2006)