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PARG Antibody (C-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16714b

Specification

PARG Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	Q86W56
Other Accession	NP_003622.2
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**111110**
Antigen Region	**821-849**

PARG Antibody (C-term) - Additional Information

Gene ID 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 821-849 amino acids from the C-terminal region of human PARG.

Dilution
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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:34019811, PubMed:34321462). 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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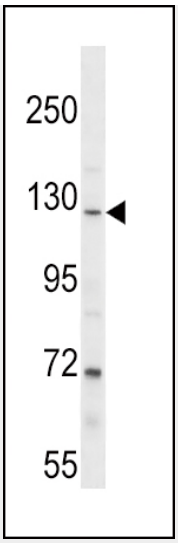

PARG Antibody (C-term) (Cat. #AP16714b) western blot analysis in NCI-H292 cell line lysates (35ug/lane).This demonstrates the PARG antibody detected the PARG protein (arrow).

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

Whatcott, C.J., et al. Exp. Cell Res. 315(20):3477-3485(2009)
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Erdelyi, K., et al. FASEB J. 23(10):3553-3563(2009)
Ame, J.C., et al. J. Cell. Sci. 122 (PT 12), 1990-2002 (2009) :
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