

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

Dilution

WB~~1:1000

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:[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

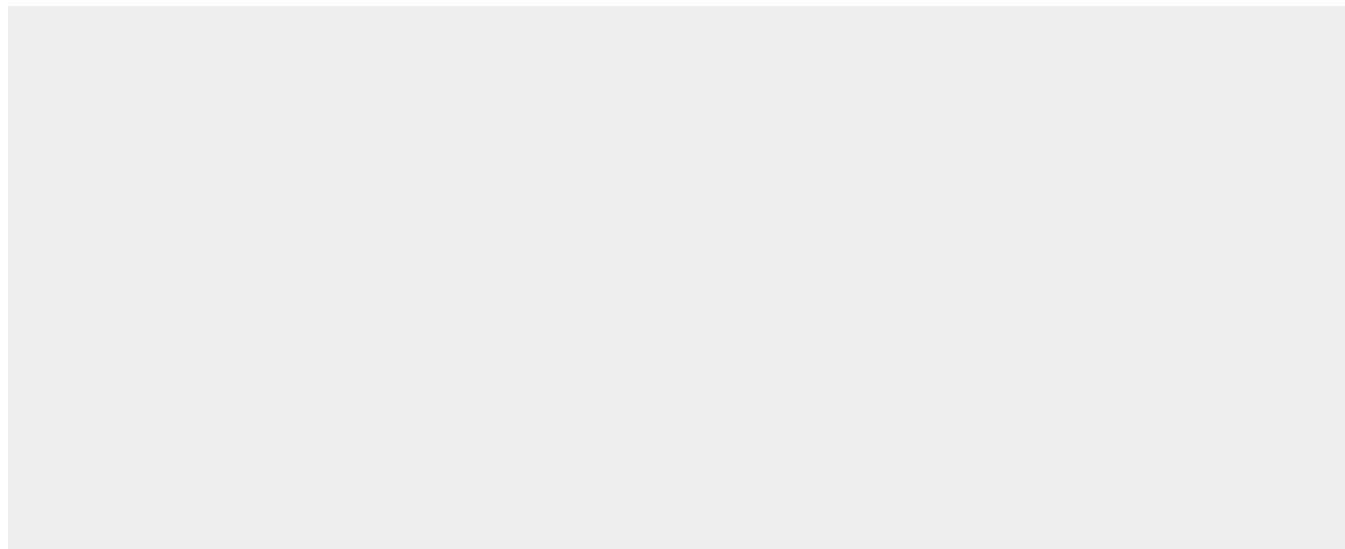
Ubiquitously expressed.

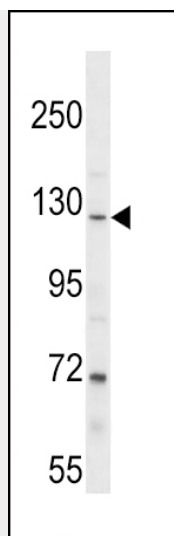
PARG Antibody (C-term) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PARG Antibody (C-term) - Images





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)
Frizzell, K.M., et al. J. Biol. Chem. 284(49):33926-33938(2009)
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) :
Uchiumi, F., et al. Genes Cells 13(12):1229-1247(2008)