

Datasheet for KCC-GM8**PARP1 (N-term ZF1) Antibody Set****Overview**

Description:	PARP1 (N-term ZF1) Antibody Set - KCC-GM8
Item No.:	KCC-GM8
Size:	1 Set
Applications:	IHC, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	PARP1 is the primary member of the poly(ADP-ribose) polymerase family, whose function is to signal DNA damage (and to recruit repair proteins) by PARylation. PARP1 is also involved in multiple cell death pathways, including apoptosis, necroptosis, autophagy, and a relatively new pathway termed parthanatos. It has been implicated in a new form of cell death termed parthanatos. PARP1 can also promote tissue survival by shifting the balance of cell death programs between autophagy and necrosis. Clinical studies have shown vulnerability to PARP inhibitors in DNA repair defective cancers. Anti-PARP1 (N-term ZF1) antibody is useful for researchers interested in cellular processes including DNA damage, transcriptional control, and stem cell identity research.
Synonyms:	Poly [ADP-ribose] polymerase 1, ADP-ribosyltransferase diphtheria toxin-like 1, ARTD1, NAD(+) ADP-ribosyltransferase 1, ADPRT 1, PPOL, primary and secondary antibody pair and control protein, Control protein+Primary+Secondary, matched antibody pair
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG
Detection Kit Type:	Combo Pack

Target Details

Gene Name:	PARP1
Reactivity:	Human

Immunogen Type:	Recombinant Protein
Immunogen:	Anti-PARP1 (N-term ZF1) purified antibody was prepared from whole rabbit serum produced by repeated immunizations with n-terminus region of human PARP1 zinc finger domain recombinant protein. Anti-Rabbit IgG HRP secondary antibody was produced by repeated immunizations in goat with Rabbit IgG whole molecule.
Purity/Specificity:	This PARP1 Antibody Set contains: PARP1 (N-term ZF1) protein, Rabbit Anti-PARP1 Antibody, and Goat Anti-RABBIT IgG (HRP) Antibody. PARP1 (N-term ZF1) protein is an N-terminus His-Tag recombinant protein expressed in E.coli corresponding to a fragment of the human PARP1 zinc finger domain. Rabbit Anti-PARP1 (N-term ZF1) was purified from monospecific antiserum by immunoaffinity chromatography using protein A coupled to agarose beads. This antibody is specific for human PARP1 protein. No cross reactivity detected towards other PARP members when using siRNAs against 18 PARP family members. Cross-reactivity with PARP1 from other sources has not been determined. Goat Anti-RABBIT IgG (H&L) Antibody Peroxidase Conjugated Pre-Adsorbed was prepared from monospecific antiserum by immunoaffinity chromatography using Rabbit IgG coupled to agarose beads followed by solid phase adsorption(s) to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Peroxidase, anti-Goat Serum, Rabbit IgG and Rabbit Serum. No reaction was observed against or Bovine, Chicken, Goat, Guinea Pig, Hamster, Horse, Human, Mouse, Rat and Sheep Serum Proteins.
Relevant Links:	• UniProtKB - P09874

Application Details

Tested Applications:	IHC, WB
Application Note:	Anti-PARP1 (N-term ZF1) antibody with the matched secondary has been validated by western blotting and nanoimmunoassay (NIA). Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 113 kDa in size corresponding to PARP-1 by western blotting in the appropriate cell lysate or extract. PARP1 (N-term ZF1) Control Protein analysis by SDS-PAGE resulted in a band at a MW ~13 kDa and estimated to be greater than 95% pure by Coomassie staining.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

Formulation

Physical State:	Liquid (sterile filtered)
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide and 0.01% (w/v) Gentamicin Sulfate

Stabilizer: None

Shipping & Handling

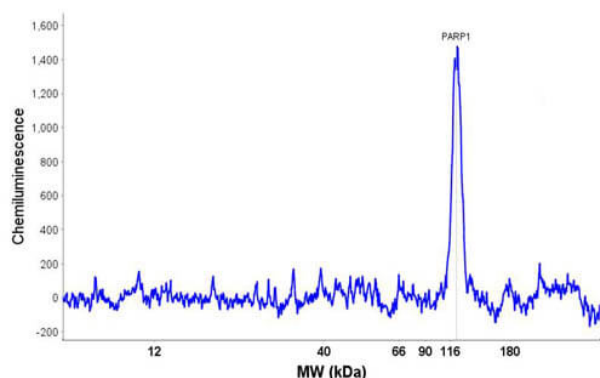
Shipping Condition: Dry Ice

Storage Condition: Control Protein and Primary antibody: the vial contains a relatively low volume of reagent (25 μ L). Store vial at -20° C or below prior to opening. To minimize loss of volume dilute 1:10 by adding 225 μ L of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20° C or below after dilution. Avoid cycles of freezing and thawing.

Secondary antibody: Store vial at -20° C. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

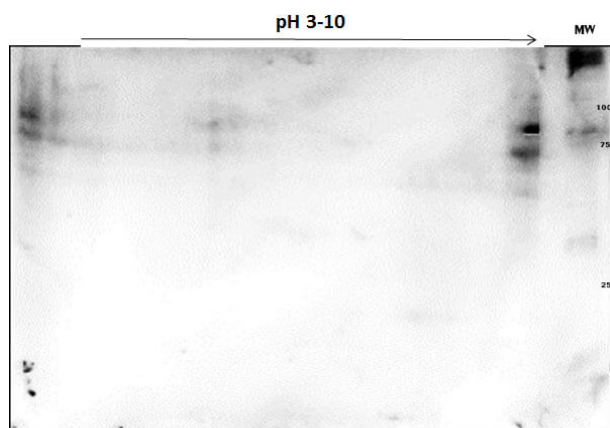
Expiration: Expiration date is one (1) year from date of receipt.

Images



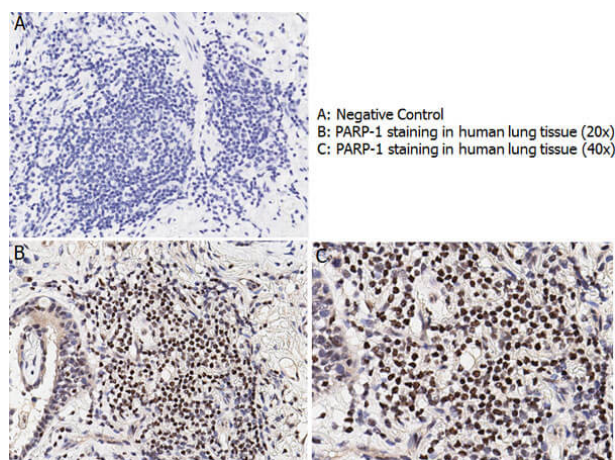
Peggy Electropherogram

Peggy Sue™ Size Separation Electropherogram of OVCAR-8 lysates in no-salt buffer and detected with Anti-PARP1 (N-term ZF1). UV immobilization time: 250 seconds. Protein concentration: 577 μ g/mL; 120 s UV immobilization. Primary antibody concentration: 20 μ g/mL. Primary antibody incubation time: 180 min. Exposure time: multi-image analysis exposure. Predicted/observed: ~116 kDa. Image courtesy of Phil Lorenzi at MD Anderson.



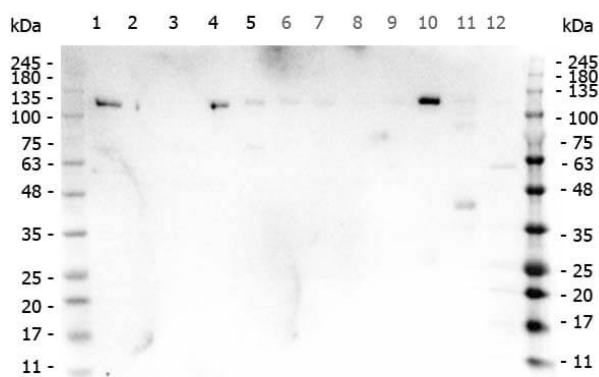
2D PAGE

OVCAR-8 Wild Type Lysate was separated on 2D SDS-PAGE and blotted on PVDF to analyze immunocoverage of PARP1 antibody specific for the zinc finger 1 domain of PARP1. Primary Antibody: Anti-PARP1 (n-term) antibody 1:200 overnight at 4°C. Secondary Antibody: Goat anti-rabbit Peroxidase (611-103-122) at 1:2,000 at RT for 30min. Blocking Buffer: BlockOut (p/n MB-073) for 30 min at RT. Predicted/observed: ~110 kDa and pl 9.7.



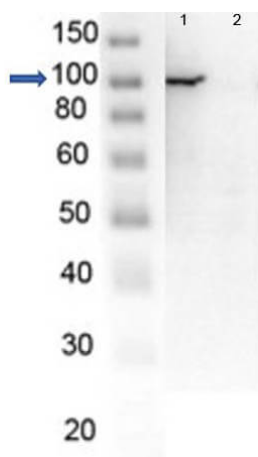
Immunohistochemistry

Immunohistochemistry with anti-PARP-1 antibody showing nuclear positivity in human lung tissue at 20x and 40x (B & C). Staining was performed on Leica Bond system using the standard protocol. Formalin fixed/paraffin embedded tissue sections were subjected to antigen retrieval and then incubated with rabbit anti-PARP-1 antibody 200-401-GM8 at 1:100 dilution for 60 minutes. Biotinylated Anti-rabbit secondary antibody was used at 1:200 dilution to detect primary antibody. The reaction was developed using streptavidin-HRP conjugated compact polymer system and visualized with chromogen substrate, 3'-3'-diamino-benzidine substrate (DAB). The sections were then counterstained with hematoxylin to detect cell nuclei.



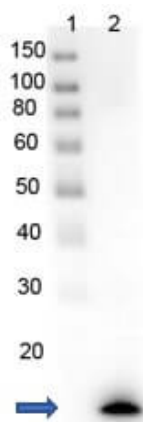
Western Blot

Western Blot of Rabbit anti-PARP1 antibody. Marker: Opal Pre-stained ladder (p/n MB-210-0500). Lane 1: HEK293 lysate (p/n W09-000-365). Lane 2: HeLa Lysate (p/n W09-000-364). Lane 3: MCF-7 Lysate (p/n W09-000-360). Lane 4: Jurkat Lysate (p/n W09-000-370). Lane 5: A431 Lysate (p/n W09-000-361). Lane 6: A549 Lysate (p/n W09-001-372). Lane 7: LNCap Lysate (p/n W09-001-GJ9). Lane 8: MOLT-4 Lysate (p/n W09-001-GK2). Lane 9: Ramos Lysate (p/n W09-000-GK4). Lane 10: Raji Lysate (p/n W09-001-368). Lane 11: A-172 Lysate (p/n W09-001-GL5). Lane 12: NIH/3T3 Lysate (p/n W10-000-358). Load: 35 µg per lane. Primary antibody: PARP1 antibody at 1ug/mL overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody (p/n 611-103-122) at 1:30,000 for 60 min at RT. Blocking Buffer: 1% Casein-TTBS (p/n MB-082) for 30 min at RT. Predicted/Observed size: 113 kDa for PARP1.



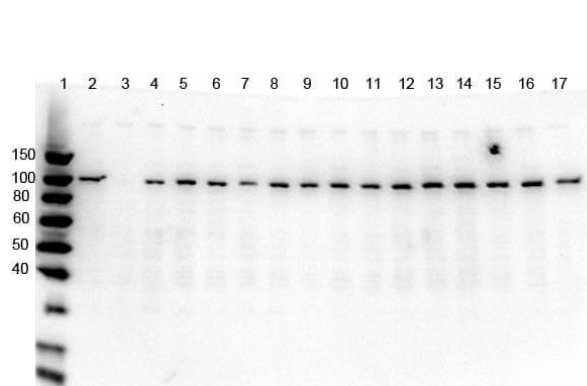
Western Blot

Western Blot of endogenous PARP1 with Rabbit Anti-PARP1 (N-term ZF1) Antibody. Lane 1: OVCAR8 Wild Type lysate. Lane 2: OVCAR8 PARP1 KO lysate. Load: 5 µg per lane. Primary antibody: PARP1 (N-term ZF1) antibody at 1µg/mL for overnight at 4°C. Secondary antibody: HRP Gt-a-Rb IgG secondary antibody (p/n 611-103-122) at 1:40,000 for 30 min at RT. Block: MB-070 overnight at 4°C. Predicted/Observed size: 113 kDa for endogenous PARP1. Other band(s): none. Image in collaboration with Phil Lorenzi at MD Anderson.



Western Blot

Western Blot of recombinant PARP1 with rabbit anti-PARP1 (N-term ZF1) antibody. Lane 1: PARP1-Zinc Finger domain recombinant protein. Load: 0.05 µg per lane. Primary antibody: PARP1 (N-term ZF1) antibody at 1µg/mL for overnight at 4°C. Secondary antibody: HRP Gt-a-rabbit secondary antibody (p/n 611-103-122) at 1:40,000 for 30 min at RT. Block: MB-070 overnight at 4°C. Predicted/Observed size: 13 kDa for rPARP1 (N-term ZF1). Other band(s): none.



Western Blot

Western Blot of Rabbit anti-PARP1 N-term Antibody. Lane 1: Opal Pre-stained ladder (p/n MB-210-0500). Lane 2: OVCAR-8 Wild Type. Lane 3: PARP1-KO. Lane 4: PARP2-KO. Lane 5: PARP3-KO. Lane 6: PARP4-KO. Lane 7: PARP5a-KO. Lane 8: PARP5b-KO. Lane 9: PARP6-KO. Lane 10: PARP7-KO. Lane 11: PARP8-KO. Lane 12: PARP9-KO. Lane 13: PARP10-KO. Lane 14: PARP12-KO. Lane 15: PARP13-KO. Lane 16: PARP14-KO. Lane 17: PARP16-KO. Load: 5.0 µg per lane. Primary antibody: PARP1 n-term antibody at 1ug/mL overnight at 4°C. Secondary antibody: Goat anti-rabbit Peroxidase secondary antibody (p/n 611-103-122) at 1:40,000 for 30 min at RT. Blocking Buffer: MB-073 for 30 min at RT. Predicted/Observed size: ~113 kDa for PARP1.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.