

Datasheet for 200-401-X51S**PARP1 (internal) Antibody****Overview**

Description:	Anti-PARP1 (internal) (RABBIT) Antibody - 200-401-X51S
Item No.:	200-401-X51S
Size:	25 µL
Applications:	2D-PAGE, WB, IP
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 (internal) antibody is useful for researchers interested in cellular processes including DNA damage, transcriptional control, and stem cell identity research.
Synonyms:	rabbit anti-PARP1 Antibody, Poly [ADP-ribose] polymerase 1, ADP-ribosyltransferase diphtheria toxin-like 1, ARTD1, NAD(+) ADP-ribosyltransferase 1, ADPRT 1, PPOL
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	PARP1
Reactivity:	Human
Immunogen Type:	Recombinant Protein

Immunogen:	PARP1 (internal) purified antibody was prepared from whole rabbit serum produced by repeated immunizations with c-terminus region of human PARP1 autocatalytic domain recombinant protein.
Purity/Specificity:	PARP1 (internal) 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.
Relevant Links:	• GeneID - 142 • UniProtKB - P09874

Application Details

Tested Applications:	2D-PAGE, WB
Suggested Applications:	IP (Based on references)
Application Note:	Anti-PARP1 (internal) antibody has been tested 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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
WB:	1:1000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

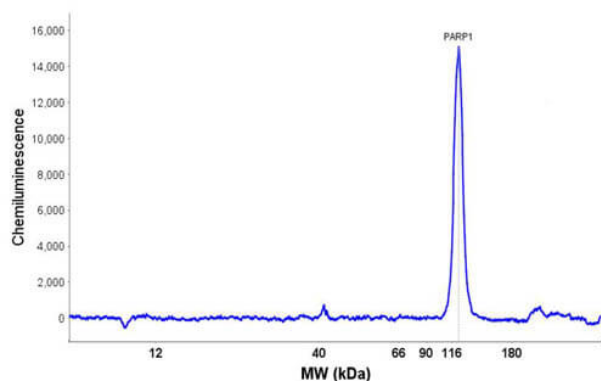
Shipping & Handling

Shipping Condition:	Dry Ice
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Storage Condition: Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL 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.

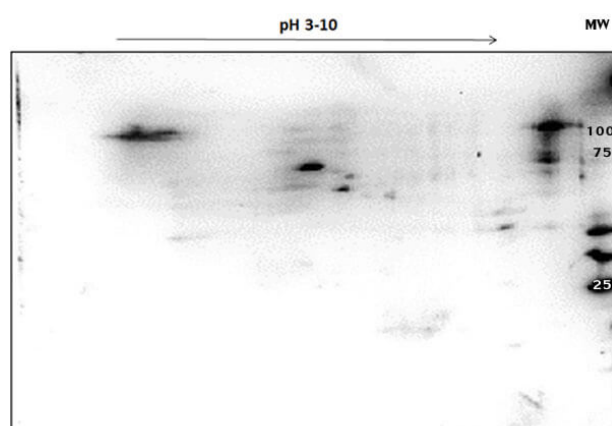
Expiration: Expiration date is one (1) year from date of receipt.

Images



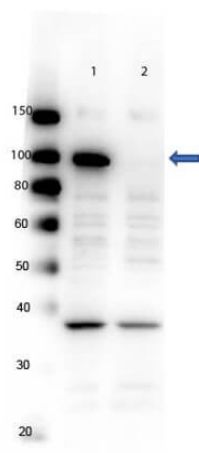
Peggy Size Separation Electropherogram

Peggy Sue™ Size Separation Electropherogram of OVCAR-8 lysates in no-salt buffer and detected with Anti-PARP1 (internal). UV immobilization time: 250 seconds. Protein concentration: 577 µg/mL; 120 s UV immobilization. Primary antibody concentration: 20µg/mL. Primary antibody incubation time: 180 min. Exposure time: 10 seconds. Predicted/observed: ~116 kDa. Image courtesy of Phil Lorenzi at MD Anderson.



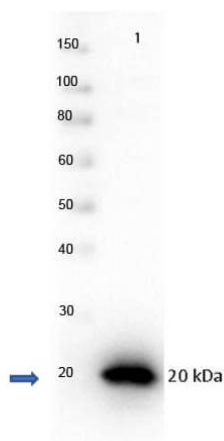
2D PAGE

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



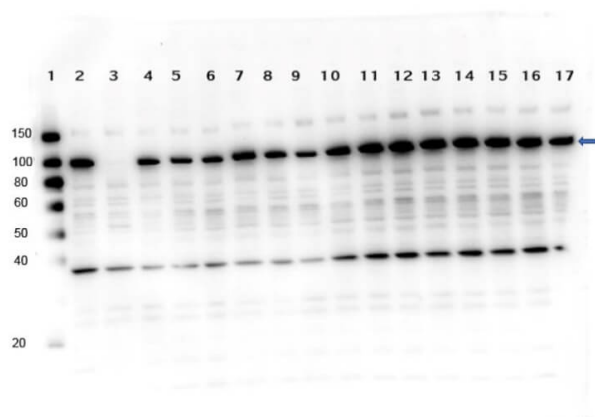
Western Blot

Western Blot of Rabbit Anti-PARP1 (internal) Antibody. Lane 1: OVCAR8 Wild Type lysate. Lane 2: OVCAR8 PARP1 KO lysate. Load: 5 µg per lane. Primary antibody: PARP1 (internal) antibody at 1:1000 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: ~113kDa endogenous for PARP1. Other band(s): nonspecific ~40kDa.



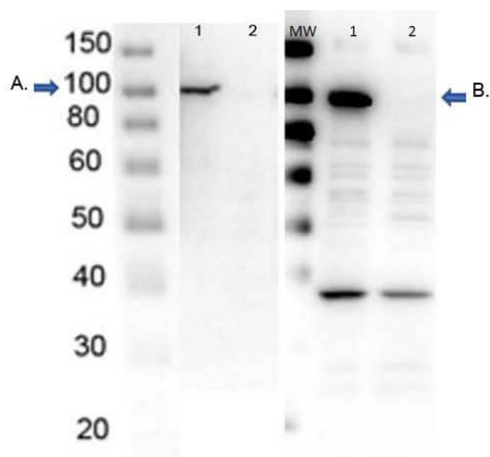
Western Blot

Western Blot of recombinant PARP1 with Rabbit anti-PARP1 (internal) antibody. Lane 1: PARP1-autocatalytic domain recombinant protein. Load: 0.05 µg per lane. Primary antibody: PARP1 (internal) 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: ~19 kDa for rPARP1 (internal) Other band(s): none.



Western Blot

Western Blot of Rabbit anti-PARP1 antibody. Lane 1: Molecular Weight ladder. 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 antibody at 1µg/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 size: ~113kDa for PARP1. Observed nonspecific ~40kDa.



Western Blot

Western Blot of endogenous PARP1 with Rabbit Anti-PARP1 Antibodies.

Lane 1: OVCAR8 Wild Type lysate. Lane 2: OVCAR8 PARP1 KO lysate.

Load 5 µg per lane.

Primary Antibody: Blot A: Anti-PARP1- n term (p/n 200-401-GM8); Blot B: Anti-PARP1- internal (p/n 200-401-X51) 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): nonspecific ~ 40kDa in PARP1-AD only.

References

- Sikorski et al. A high-throughput pipeline for validation of antibodies. *Nature Methods* (2018)

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.