PARP-1 polyclonal antibody

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ALX-210-302-R100	100µl

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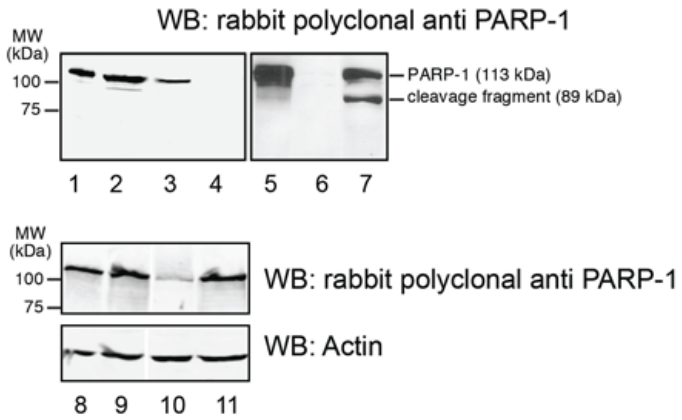
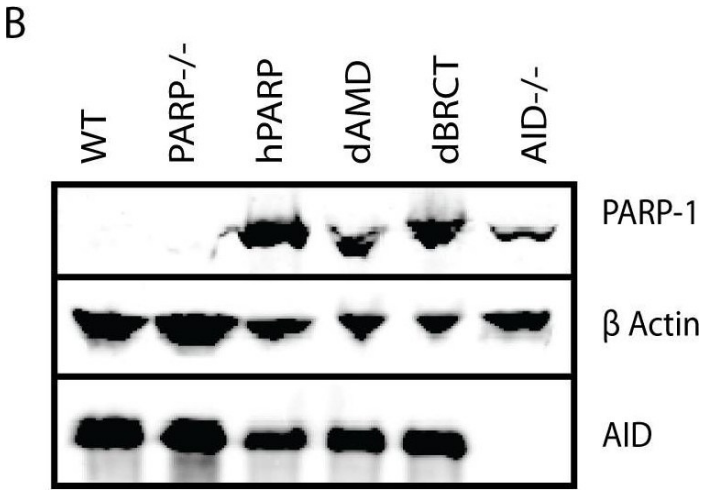
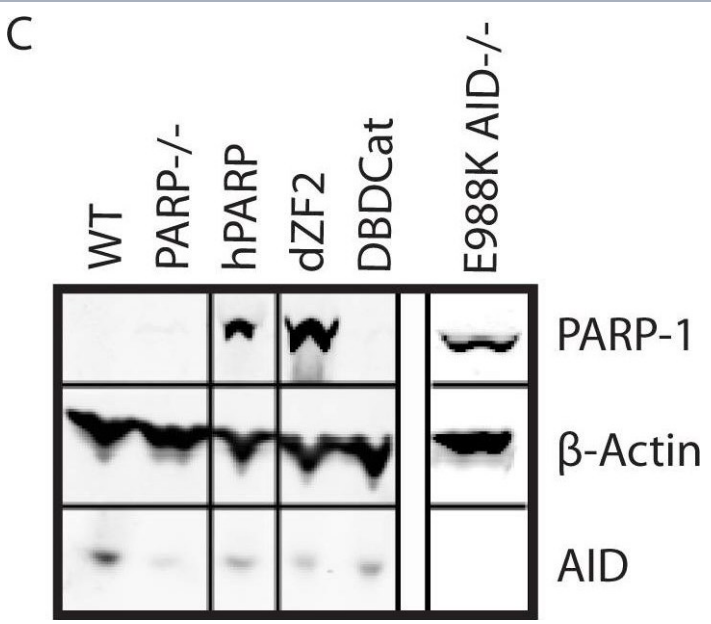


Figure: Western blot using rabbit polyclonal anti PARP-1.
Lane 1: recombinant human PARP-1 (ALX-201-053, 5 ng).
Lane 2: Total HeLa cell extract.
Lane 3: Total MEF PARP1+/+ cell extract.
Lane 4: Total MEF PARP1-/- cell extract.
Lane 5: Lysate (50 µg) from HeLa cells.
Lane 6: Lysate (50 µg) from HeLa PARP-1sh cells.
Lane 7: Lysate (50 µg) from HeLa cells treated for 8 hours with Doxorubicin 5 µg/ml.
Lane 8: Lysate (50 µg) from HEK293 cells.
Lane 9: Lysate (50 µg) from HEK293 cells.
Lane 10: Lysate (50 µg) from HEK293 cells transfected with PARP-1 siRNA.
Lane 11: Lysate (50 µg) from HEK293 cells transfected with control siRNA.

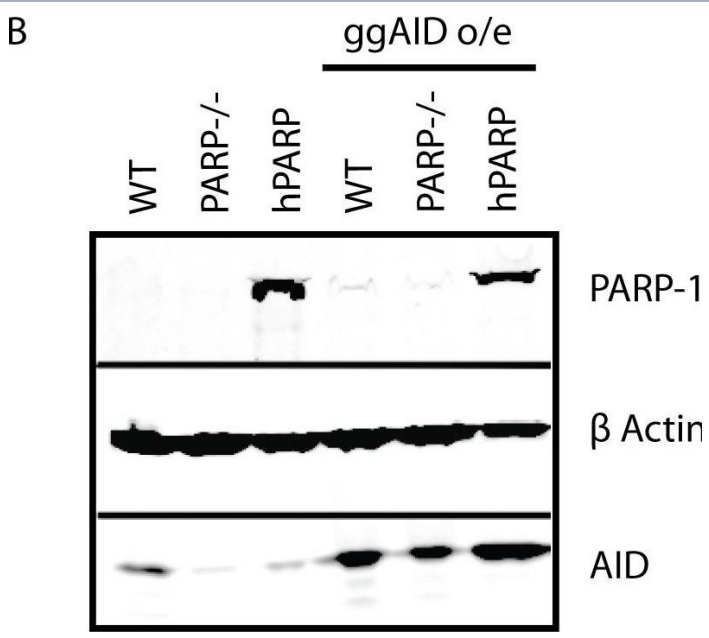


The PARP-1 BRCT domain is required for immunoglobulin gene conversion.(A) Schematic of the domains of PARP-1 and variants dAMD and dBRCT. (B) Western blot showing levels of PARP-1 and AID expression with β actin as a loading control. (C) Survival of PARP-1 variants to MMS-induced DNA damage. Experiment was performed in triplicate and error bars represent SEM. *** p<.0001 compared to WT or dBRCT; † p<.0001 compared to WT or dBRCT, p = .02 compared to dAMD. There is no significant difference between WT and dBRCT. (D) Frequencies of gene conversion events as a proportion of total mutations at the IgL locus (+/− SEM). n = total number of mutations analyzed for each cell line.

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Functional effects of expression of human PARP-1 variants on survival in response to MMS-induced DNA damage.(A) Schematic of domains of human PARP-1 and variants. The functional domains of PARP-1 consist of a DNA binding domain (DBD), automodification domain (AMD), BRCT protein interaction domain (BRCT), and WGR/catalytic domain (WGR/Cat). The DBD contains 3 zinc finger domains, which are unusual in that they have specificity for DNA structure rather than sequence and recognize single strand breaks (SSBs) or double strand breaks (DSBs) [39],[40]. The AMD contains the lysine residues that act as poly-ADP-ribose (PAR) acceptors [35]. The WGR/catalytic domain catalyzes PAR formation when the DBD is bound to DNA, and PARylation of the AMD is thought to serve as a signal to recruit DNA repair enzymes such as XRCC1 as well as facilitates the release of PARP-1 from the site of DNA damage [41]. The BRCT protein interaction domain is of unknown function, as it has been shown to be dispensable for PARP-1's DNA repair functions in previous analyses [16]. hPARP: full length human PARP-1; dZF2: C125Y and C128Y mutations to prevent folding of the second zinc finger domain; DBDCat: DNA binding domain fused to a non-functional portion of the catalytic domain. (B) MMS survival assay comparing survival of the PARP-1 variants to MMS-induced DNA damage. Survival is measured by the ability to proliferate after 1 h of exposure to MMS at the indicated concentration. The experiment was performed in triplicate; error bars represent SEM. *** PARP-1−/−, dZF2, and hPARP p<.0001 compared to WT; PARP-1−/− p<.0003 compared to hPARP; † p<.0001 compared to WT, p = .021 compared to PARP-1−/−; between PARP-1−/− and dZF2 there is no significant difference. (C) Western blot showing levels of variant PARP-1 and AID expression with β actin as a loading control.



AID overexpression does not restore GCV to PARP-1−/− cells.(A) Gene conversion frequencies (+/− SEM) in cell lines overexpressing ggAID. n = total number of mutations analyzed for each cell line. The total number of sequences analyzed was 169 WT, 137 PARP-1−/−, and 106 hPARP. (B) Western blot showing increase in AID expression upon transduction with ggAID retrovirus. (C) IgL transcript levels (mean +/− SEM) are similar in cell lines which do and do not support GCV. * p<.05, ns = not significant compared to hPARP. (D) AID expression levels do not directly influence GCV frequencies. Blue bars are AID expression levels (mean +/− SEM) before (dark blue) and after (light blue) transduction with ggAID cDNA as measured by Western blot and quantified by LICOR Odessey infrared imaging, normalized to β actin. Brown bars are GCV frequencies (mean +/− SEM) before (dark brown) and after (light brown) transduction with ggAID cDNA as a percentage of total mutations observed for the indicated cell lines. *** p<.0001, * p<.05, ns = not significant.

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Handling & Storage

Use/Stability	Stable for at least one year when stored at +4°C.
Handling	Avoid freeze/thaw cycles.
Long Term Storage	+4°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	Poly(ADP-ribose) polymerase-1
Application	ELISA, ICC, IHC (FS), IHC (PS), IP, WB
Application Notes	Detects bands of ~116kDa (PARP-1) and ~85kDa (apoptosis-induced cleavage fragment) by Western blot.
Crossreactivity	Does not cross-react with PARP-2.
Formulation	Liquid. Neat serum containing 0.02% sodium azide.
Host	Rabbit
Immunogen	Recombinant human PARP-1 (poly(ADP-ribose) polymerase-1) (aa 1-1014).
Recommendation Dilutions/Conditions	Immunocytochemistry (1:4,000)Immunoprecipitation (1:400)Western Blot (1:4,000)Suggested dilutions/conditions may not be available for all applications.Optimal conditions must be determined individually for each application.
Species Reactivity	Bovine, Human, Monkey, Mouse
UniProt ID	P09874
Worry-free Guarantee	**This antibody is covered by our Worry-Free Guarantee .**

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