

ARG22932 anti-PARP antibody [A6.4.12]

Package: 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [A6.4.12] recognizes PARP Mouse anti poly (ADP-ribose) polymerase 1 antibody, clone A6.4.12 recognizes poly (ADP-ribose) polymerase 1 (PARP-1), a ~116kD nuclear enzyme cleaved during apoptosis (Soldani et al. 2002). PARP-1, a caretaker enzyme, is involved in DNA damage repair (Langelier et al. 2013), plays roles in diabetes pathophysiology (Andreone et al. 2012) and tumour proliferation (Rosado et al 2013.). As well as protecting cells from genomic instability, PARP-1 is involved in the development of both inflammatory and immune responses, and cell death by apoptosis and necrosis (Erdélyi et al. 2005). Mouse anti poly(ADP-ribose) polymerase 1 antibody, clone A6.4.12, targets PARP-1, an enzyme which represents a promising target for new developments in therapeutic treatment of immune mediated diseases (Rosado et al. 2013). PARP-1 has considerable potential for delivering selective tumour cell killing while sparing normal cells (Pinton et al. 2013).
Tested Reactivity	Hu, Ms, Rat, Dm, Hm, Xenopus
Tested Application	ELISA, ICC/IF, IHC-Fr, IHC-P, IP, WB
Host	Mouse
Clonality	Monoclonal
Clone	A6.4.12
Isotype	IgG1
Target Name	PARP
Species	Human
Immunogen	Human PARP-1
Conjugation	Un-conjugated
Alternate Names	EC 2.4.2.30; Poly[ADP-ribose] synthase 1; PPOL; ADPRT; ARTD1; NAD; PARP-1; ADPRT 1; Poly [ADP-ribose] polymerase 1; PARP; ADP-ribosyltransferase diphtheria toxin-like 1; ADPRT1; pADPRT-1

Application Instructions

Application table	Application	Dilution
	ELISA	Assay-dependent
	ICC/IF	Assay-dependent
	IHC-Fr	Assay-dependent
	IHC-P	Assay-dependent
	IP	Assay-dependent
	WB	1:1000 - 1:5000

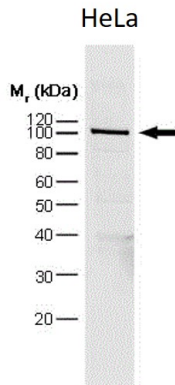
Application Note IHC-P: Antigen Retrieval: Boil tissue section in Sodium citrate buffer (pH 6.0).
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS and 0.09% Sodium azide
Preservative	0.09% Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

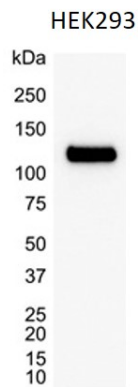
Bioinformation

Gene Symbol	PARP1
Gene Full Name	poly (ADP-ribose) polymerase 1
Background	This gene encodes a chromatin-associated enzyme, poly(ADP-ribosyl)transferase, which modifies various nuclear proteins by poly(ADP-ribosyl)ation. The modification is dependent on DNA and is involved in the regulation of various important cellular processes such as differentiation, proliferation, and tumor transformation and also in the regulation of the molecular events involved in the recovery of cell from DNA damage. In addition, this enzyme may be the site of mutation in Fanconi anemia, and may participate in the pathophysiology of type I diabetes. [provided by RefSeq, Jul 2008]
Function	Involved in the base excision repair (BER) pathway, by catalyzing the poly(ADP-ribosyl)ation of a limited number of acceptor proteins involved in chromatin architecture and in DNA metabolism. This modification follows DNA damages and appears as an obligatory step in a detection/signaling pathway leading to the reparation of DNA strand breaks. Mediates the poly(ADP-ribosyl)ation of APLF and CHFR. Positively regulates the transcription of MTUS1 and negatively regulates the transcription of MTUS2/TIP150. With EEF1A1 and TXK, forms a complex that acts as a T-helper 1 (Th1) cell-specific transcription factor and binds the promoter of IFN-gamma to directly regulate its transcription, and is thus involved importantly in Th1 cytokine production. Required for PARP9 and DTX3L recruitment to DNA damage sites. PARP1-dependent PARP9-DTX3L-mediated ubiquitination promotes the rapid and specific recruitment of 53BP1/TP53BP1, UIMC1/RAP80, and BRCA1 to DNA damage sites. [UniProt]
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Cell Death antibody; Gene Regulation antibody; Metabolism antibody; Apoptosis Marker antibody; Mitochondria/Caspase Dependant Apoptosis Marker antibody
Calculated Mw	113 kDa
PTM	Phosphorylated by PRKDC and TXK. Poly-ADP-ribosylated by PARP2; poly-ADP-ribosylation mediates the recruitment of CHD1L to DNA damage sites (PubMed:19661379). ADP-ribosylated on serine by autocatalysis; serine ADP-ribosylation takes place following interaction with HPF1 (PubMed:28190768). S-nitrosylated, leading to inhibit transcription regulation activity.



ARG22932 anti-PARP antibody [A6.4.12] WB image

Western blot: HeLa Nuclear Extract stained with ARG22932 anti-PARP antibody [A6.4.12].



ARG22932 anti-PARP antibody [A6.4.12] WB image

Western blot: HEK293 whole cell lysate stained with ARG22932 anti-PARP antibody [A6.4.12].
