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SM1398 Monoclonal Antibody to Poly-ADP-Ribose (PAR) - Purified

Alternate names:	PADPR
Quantity:	0.1 ml
Concentration:	1.0 mg/ml
Background:	PADPR (Poly(ADP-ribose)) is a polymer synthesized by a class of enzymes named poly(ADP-ribose) polymerases (PARP). Using NAD+ as substrate, PARP catalyzes the formation of the polymer PADPR, with chain lengths ranging from 2 to 300 residues, containing approximately 2% branching in the chain. PADPR becomes attached to nuclear proteins, and to PARP itself (automodification). Under normal conditions, cells display low basal level of PADPR polymer, which can dramatically increase in cells exposed to DNA damaging agents (irradiation, alkylation, etc.). This increase of polymer synthesis is usually transient and is followed by a rapid degradation phase with a short half life which can be less than 1 min. The low endogenous level of polymer in unstimulated cells and its rapid catabolism during DNA damage has been ascribed to high activity of the polymer catabolizing enzyme poly(ADP-ribose) glycohydrolyase (PARG).
Host / Isotype:	Mouse / IgG3
Recommended Isotype Controls:	AM03097PU-N
Clone:	10H
Immunogen:	Purified poly (ADP-ribose) polymer, 10-50 unit chain length.
Format:	**State:** Liquid purified IgG fraction from Ascites **Buffer System:** PBS **Stabilizers:** 50% Glycerol
Applications:	**Western Blot** (1/500). **Immunoprecipitation.** **Immunohistology on Frozen/Paraffin Sections:** This product requires protein digestion pre-treatment of paraffin embedded sections e.g. trypsin or pronase prior to staining. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	SM1398 recognises poly (ADP-ribose) modified proteins. The antibody does not cross-react with RNA, DNA or monomers of ADP-ribose.
Species Reactivity:	**Tested:** Human. **Expected from sequence similarity:** Broad.
Storage:	Upon receipt, store undiluted (in aliquots) at -20°C. Storage in frost-free freezers is not recommended. Shelf life: one year from despatch.

Product Citations:

Purchased from Acris:

1. Wang AS, Chou YT, Pu YS. Antagonistic effect of N-ethylmaleimide on arsenic-mediated oxidative stress-induced poly(ADP-ribosyl)ation and cytotoxicity. J. Appl. Toxicol. 2016. PubMedPMID: 27813108.

General Readings:

1. Kawamitsu H, Hoshino H, Okada H, Miwa M, Momoi H, Sugimura T. Monoclonal antibodies to poly(adenosine diphosphate ribose) recognize different structures. Biochemistry. 1984 Jul 31;23(16):3771-7. PubMed PMID: 6206890.
2. Love S, Barber R, Wilcock GK. Increased poly(ADP-ribosyl)ation of nuclear proteins in Alzheimer's disease. Brain. 1999 Feb;122 (Pt 2):247-53. PubMed PMID: 10071053.