

Product Information

Monoclonal Anti-PARP, Antibody Produced in Mouse

Clone C-2-10, ascites fluid

P248

Product Description

Monoclonal Anti-PARP (mouse IgG1) is produced by immunizing mice with purified calf thymus poly (ADP ribose) polymerase as the antigen.

This antibody recognizes a 116 kDa protein which corresponds to PARP and the 85 kDa apoptosis induced cleavage product of pICE (proteinase resembling interleukin 1 β -converting enzyme) and CPP32 (cysteine protease). It also recognizes PARP from mouse, rat, hamster and primate sources, but fails to detect avian PARP.

PARP is a eukaryotic nuclear protein involved in differentiation, DNA repair, and chromatin structure formation. During the process of programmed cell death, or apoptosis, the cell undergoes distinct morphological changes, which include shrinkage, membrane blebbing, and nuclear reorganization. Several members of the interleukin 1 β -converting enzyme (ICE)/ced-3 family of proteinases, or caspases, are activated in a cascade of cleavage events which leads to the degradation of critical cellular substrates. PARP contains a conserved proteinase recognition site, DEVD (single letter code for amino acids), which is known to be a target for several caspases including pICE and CPP32/YAMA. Other nuclear events that are concurrent with PARP cleavage during apoptosis are activation of the domain nuclease and fragmentation nuclease which cleave DNA into > 50 kb and nucleosome-sized fragments, respectively.

Reagents

Supplied as a solution in mouse ascites fluid containing 0.02% Sodium azide.

Precautions and Disclaimer

This product is for R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: Recommended starting titer - 1:500

Immunocytochemistry (ICC): Assay dependent

Immunofluorescence: Assay dependent

Immunohistochemistry Paraffin - 1:10-1:100

ELISA - Assay dependent

Note: Optimal working concentration should be determined by serial dilutions.

References

1. Budihardjo, I. I., et al. "Apparent cleavage of poly (ADP-ribose) polymerase in non-apoptotic mouse LTA cells: an artifact of cross-reactive secondary antibody." *Mol. Cell Biochem.*, **178**, 245- 249 (1998).
2. Simbulan-Rosenthal, C. M., et al. "The expression of poly (ADP-ribose) polymerase during differentiation-linked DNA replication reveals that it is a component of the multiprotein DNA replication complex." *Biochemistry*, **35**, 11622-11633 (1996).
3. Giner, H., et al. "Overproduction and large-scale purification of the human poly (ADP-ribose) polymerase using a baculovirus expression system." *Gene*, **114**, 279-283 (1992).
4. Lamarre, D., et al. "Structural and functional analysis of poly (ADP ribose) polymerase: an immunological study." *Biochim. Biophys. Acta*, **950**, 147-160 (1988).

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