



Mouse anti-Human Cleaved PARP (Asp214) monoclonal antibody, clone G32-963 [PE] (CABT-B9187)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Immunogen	Human cleaved PARP
Isotype	IgG1, κ
Source/Host	Mouse
Species Reactivity	Human
Clone	G32-963
Purification	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Conjugate	PE
Applications	FC
Format	Liquid
Size	100 tests
Buffer	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.
Storage	Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

BACKGROUND

Introduction PARP (Poly [ADP-Ribose] Polymerase) is a 113-kDa nuclear chromatin-associated enzyme

that catalyzes the transfer of ADP-ribose units from NAD⁺ to a variety of nuclear proteins including topoisomerases, histones, and PARP itself. The catalytic activity of PARP is increased in cells following DNA damage, and PARP is thought to play an important role in mediating the normal cellular response to DNA damage. Additionally, PARP is a target of the caspase protease activity associated with apoptosis. The PARP protein consists of an N-terminal DNA-binding domain (DBD) and a C-terminal catalytic domain separated by a central automodification domain. During apoptosis, Caspase-3 cleaves PARP at a recognition site (Asp Glu Val Asp Gly) in the DBD to form 24- and 89-kDa fragments. This process separates the DBD (which is mostly in the 24-kDa fragment) from the catalytic domain (in the 89-kDa fragment) of the enzyme, resulting in the loss of normal PARP function. It has been proposed that inactivation of PARP directs DNA-damaged cells to undergo apoptosis rather than necrotic degradation, and the presence of the 89-kDa PARP cleavage fraction is considered to be a marker of apoptosis.

Keywords	Poly (ADP-ribose) polymerase; PARP
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