Technical Data Sheet

Purified Mouse Anti-PARP

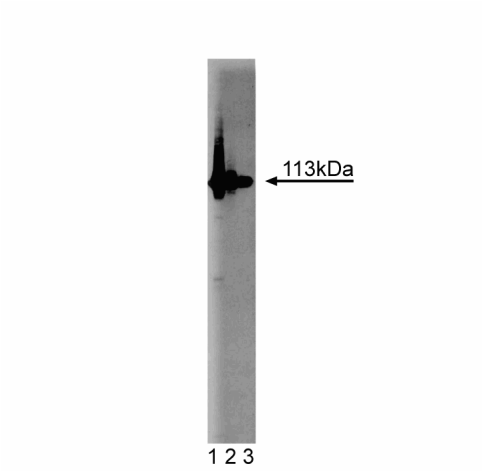
Product Information

Material Number:	**611038**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	42/PARP
Immunogen:	Human PARP aa. 22-219
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Dog, Mouse, Rat
Target MW:	113 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

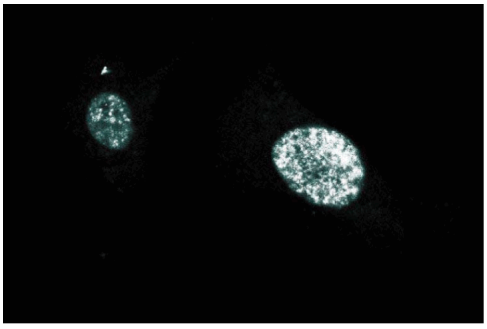
Description

Poly(**A**DP-**r**ibose) **p**olymerase (PARP) is a constitutively expressed, abundant nuclear protein. It has been referred to as "a molecular nick sensor" due to its recognition of, and catalytic activation by, single or double strand DNA breaks. The most critical ad extensively studied role of PARP is its participation in DNA base excision repair. Following binding to damaged DNA, PARP uses NAD+ to synthesize branched polymers of poly(ADP-ribose) on nuclear target proteins, including itself. Such modification of PARP increases its negative charge and results in loss of interactionwith DNA due to electrostatic repulsion. This opens the damaged DNA to DNA repair proteins. The poly(ADP-ribose) molecule is quickly degraded by poly (ADP-ribose) glycohydrolase that is found in association with PARP. PARP contains N-terminal DNA-binding domain (DBD), a central automodification domain that accepts poly (ADP-ribose), and a C-terminal catalytic domain. PARP is one of the earliest proteins targeted by caspase-3 during apoptosis. Although this protein is central to DNA repair, it has additional DNA-related functions that remain to be investigated.

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of PARP on Jurkat cell lysate. *Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of anti-PARP antibody.*



Immunofluorescent staining on BC3H1 cells

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Suggested Companion Products

Catalog Number	Name	Size	Clone
611451	Jurkat Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Igs	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

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Liao AT, Chien MB, Shenoy N, et al. Inhibition of constitutively active forms of mutant kit by multitargeted indolinone tyrosine kinase inhibitors. *Blood.* 2002; 100(2):585-593.(Clone-specific: Western blot)

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