Technical Data Sheet

Purified Mouse Anti-Human PARP with Control

Product Information

Material Number:	**551025**
Size:	150 µg
Component:	**51-6639GR**
Description:	Purified Mouse Anti-Human PARP
Size:	50 µg (3 ea)
Concentration:	0.25 mg/ml
Clone Name:	7D3-6
Immunogen:	Purified human PARP
Isotype:	Mouse IgG1
Target MW:	116 kDa (full-length), 85 kDa (cleaved)
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.
Component:	**51-16526N**
Description:	Jurkat Cell Lysate
Size:	50 µg (1 ea)
Concentration:	1.0 mg/ml
Storage Buffer:	SDS-PAGE buffer (62mM Tris pH 6.8, 2% SDS, 0.9% b-mercaptoethanol, 0.003% bromophenol blue, 5% glycerol)

Description

PARP [Poly(ADP-ribose) polymerase] is a 116 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 nonapoptotic 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. During apoptosis, PARP is cleaved from the 116 kDa intact form into 85 kDa and 25 kDa fragments. This process separates the amino-terminal DNA-binding domain of the enzyme from the carboxy-terminal catalytic domain resulting in the loss of normal PARP function. Although the role of PARP in apoptosis remains to be elucidated, PARP cleavage is considered to be a marker of apoptosis. BD Pharmingen™ PARP antibodies [Clone 4C10-5 (Cat. No. 556494), Clone 7D3-6 (Cat. No. 556493), and Clone C2-10 (Cat. No. 556362)] all recognize both the intact 116 kDa form and 85 kDa fragment of PARP.

The 7D3-6 antibody recognizes both the 116 kDa intact form and the 85 kDa fragment of human PARP. It recognizes both native and denatured PARP. It reacts with an epitope located in the NAD binding domain. Purified human PARP was used as immunogen. The antibody was originally characterized by western blot analysis, flow cytometric analysis, and by dot blot assays. In dot blot assays, the antibody reacts with the native enzyme in the presence or absence of bound DNA as well as after synthesis of covalently linked poly(ADP-ribose).

Preparation and Storage

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

Application Notes

Application

Western blot	Routinely Tested
Immunoprecipitation	Tested During Development
Flow cytometry	Reported
Functional assay	Reported

Recommended Assay Procedure:
Jurkat control lysate [50 µg (1 µg/µl)] is provided as a western blot positive control (Comp. No. 51-16526N; store lysate at -20°C). Additional control lysate is sold separately.

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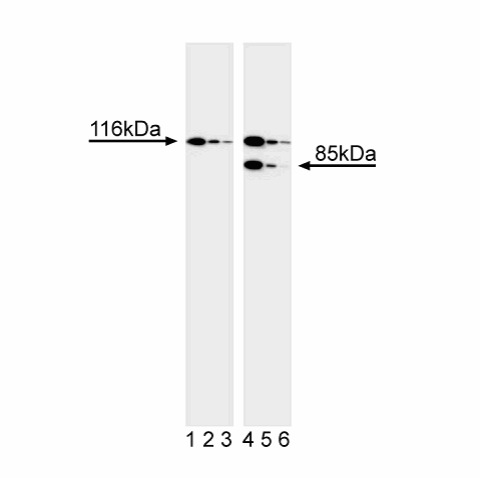

Western blot analysis of PARP. *Control (lanes 1-3) and treated Jurkat lysates (lanes 4-6) were probed with anti-PARP (clone 7D3-6, Comp. No. 51-6639GR) at concentrations of 2.0 (lanes 1, 4), 1.0 (lanes 2, 5), and 0.5 µg/ml (lanes 3, 6). Intact PARP is identified as a band of 116 kDa, and cleaved PARP as a band of ~85 kDa.*

Suggested Companion Products

Catalog Number	Name	Size	Clone
611451	Jurkat Cell Lysate	500 µg	(none)
550959	Jurkat Apoptotic Lysate Set I	500 µg	(none)

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

Patel T, Gores GJ, Kaufmann SH. The role of proteases during apoptosis. *FASEB J.* 1996; 10(5):587-597.(Biology)
Ranjit GB, Cheng MF, Mackay W, Whitacre CM, Berger JS, Berger NA. Poly(adenosine diphosphoribose) polymerase in peripheral blood leukocytes from normal donors and patients with malignancies. *Clin Cancer Res.* 1995; 1(2):223-234.(Immunogen: Dot Blot, Flow cytometry, Western blot)