Datasheet for ABIN1741729

PARP1 Protein

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Overview

Quantity:	50 µg
Target:	PARP1
Origin:	Human
Source:	Baculovirus
Protein Type:	Recombinant
Biological Activity:	Active
Application:	Western Blotting (WB), ELISA, Poly ADP ribose research (PAR)

Product Details

Specificity:	Biological Activity: 20000 U/mg PARP1,Protein targets
Characteristics:	PARP1 Enzyme is highly purified and enzymatically active human PARP1, expressed in a baculovirus expression system. It is useful for high-throughput enzymatic assays, visualization of the automodification reaction by SDS-PAGE and Western blotting, ELISA, standard for SDS-PAGE and WB, and in other assays. Full-length hPARP1
Purification:	Affinity chromatography
Purity:	> 95 %

Target Details

Target:	PARP1
Alternative Name:	Poly ADP ribose Polymerase 1 (PARP1 Products)

Target Details

Background:	Poly (ADP-ribose) polymerase-1 (PARP1) is an abundant and ubiquitous nuclear enzyme that catalyzes the NAD(+)-dependent addition of ADP-ribose polymers on a variety of nuclear proteins.
Molecular Weight:	113 kDa
Pathways:	Apoptosis, Caspase Cascade in Apoptosis, DNA Damage Repair, Production of Molecular Mediator of Immune Response, Maintenance of Protein Location

Application Details

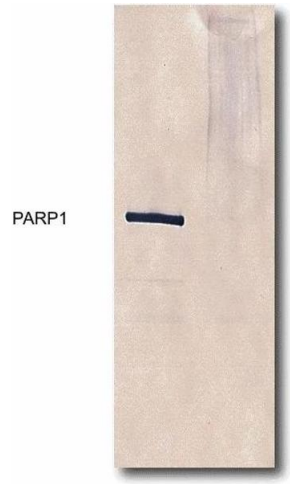
Application Notes:	10 ng/reaction
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Reconsitute in dH2O
Storage:	-20 °C

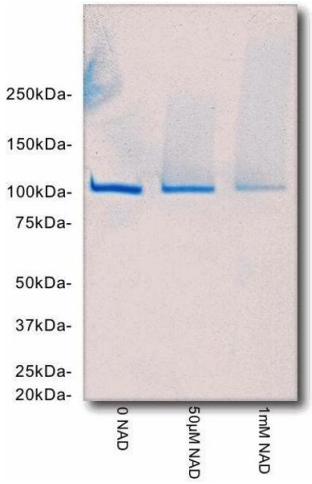
Publications

Product cited in:	Yeo, Ting, Brena, Koh, Chen, Toh, Lim, Oh, Lee: "Genome-Wide Transcriptome and Binding Sites Analyses Identify Early FOX Expressions for Enhancing Cardiomyogenesis Efficiency of hESC Cultures." in: **Scientific reports**, Vol. 6, pp. 31068, (2016) (PubMed).



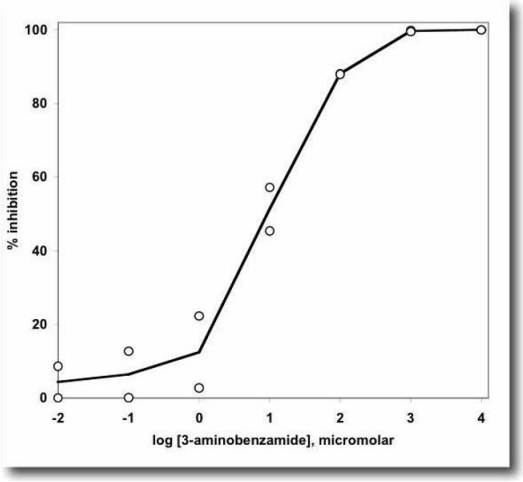
Western Blotting

Image 1. Western blot using anti-PARP1. Lane A, PARP1; Lane B, PARP1 automodified by incubation with 1mM NAD for 1h@RT. Note the single PARP1 band in lane A, unmodified PARP. Lane B indicates a smear of staining above MW 113kDa representing polyADPribosylated PARP1 modified to various extents. All detectable PARP1 is automodified in B. Blot was developed with HRP/TMB. Each lane has 100ng PARP1.



SDS-PAGE

Image 2. SDS-PAGE/Coomassie Blue staining of poly(ADP-ribose) automodified PARP1. PARP1 was incubated with 0, 50µM, or 1mM NAD for 10 min@RT in reaction buffer (see protocol). Samples (0.625µg/lane) were run on SDS-PAGE and stained with Coomassie Blue. With increasing NAD concentrations, the 113kDa PARP1 band decreases and there is a shift to a higher MW smear, indicating poly(ADP-ribose) PARP modified to various extents. At longer incubation times, there is a complete conversion from native to poly ADP-ribosylated PARP1 (not shown).



Enzyme Activity Assay

Image 3. PARP1 Enzyme Inhibition by 3-amino benzamide. PARP1 enzyme activity was assayed by ADP-ribose incorporation into immobilized histone for 1h@RT. Conditions were PARP1, 15ng/well, preincubated with increasing concentrations of 3-AB, performed in duplicate.

