

## PARP-1, human recombinant

<b>ALTERNATE NAME:</b>	Poly (ADP-ribose) polymerase-1, human	
<b>CATALOG #:</b>	4992-50	50 µg
<b>SOURCE:</b>	Baculovirus	
<b>PURITY:</b>	>95% by SDS-PAGE	
<b>MOL. WEIGHT:</b>	116 kDa	
<b>FORM:</b>	Lyophilized solid	

### RECONSTITUTION:

Spin tube in a microfuge for 15 sec to sediment lyophilized material. Carefully open the vial and add 100 µL dH<sub>2</sub>O. Vortex gently for 20 sec (avoid air bubbles). Let stand for 5 min. Carefully triturate the sample 10-times using a pipetman (avoid air bubbles). Spin briefly in microfuge to consolidate. Upon reconstitution with 100 µL dH<sub>2</sub>O, the final concentrations are as follows: 0.5 mg/mL PARP1 enzyme, 20 mM Tris, pH 8, 0.3 M NaCl, 0.1 mM EDTA, 1 mM DTT, plus lyophilization stabilizers.

### STORAGE CONDITIONS:

Store reconstituted solution at -70°C. Avoid multiple freeze-thaw cycles. **CAUTION:** There is loss of PARP enzymatic activity upon each free/thaw cycle. It is suggested to aliquot the reconstituted enzyme into multiple tubes and freeze at -70°C. Alternatively, add glycerol at 1:1 vol/vol to the reconstituted PARP1, mix gently by trituration, and store at -20°C (do not store in a frost-free freezer!) for up to 6 months.

### DESCRIPTION:

Poly-ADP-ribose metabolism plays a major role in a wide range of biological processes, such as maintenance of genomic stability, transcriptional regulation, energy metabolism and apoptosis. PARP1 Enzyme, is highly purified and enzymatically active human PARP1, expressed in a baculovirus expression system. Upon addition of NAD<sup>+</sup> and cofactors the PARP1 is automodified by the addition of ADP-ribose monomers to form poly(ADP-ribose) polymer. The PARP1 is supplied lyophilized, and upon reconstitution with water, it retains its native poly ADP-ribosylation enzymatic activity. 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 in other assays.

### BIOLOGICAL ACTIVITY:

1000 U/vial, specific activity = 20000 U/mg PARP1. 1U=10 fmol ADP-ribose incorporated into 5 µg immobilized histone in 30 min at room temperature. Note: Activity measurements are approximate values.

**FOR RESEARCH USE ONLY! Not to be used on humans.**

### RELATED PRODUCTS:

- ABT-88 (Cat. No. 1620-1,5)
- DPQ (Cat. No. 1899-1, 5)
- DR2313 (Cat. No. 1771-1, 5)
- PARP Antibody (Cat. No. 3002-100)
- PARP Blocking peptide (Cat. No. 3002BP-50)
- PARP Antibody (Cat. No. 3023-100)
- PARP (cleaved) Antibody (Cat. No. 3140-100)
- PARP (cleaved) Antibody (Cat. No. 3141-100)
- PARP (cleaved) Antibody (Cat. No. 3142-100)