



TREVIGEN®

PARP in vivo Pharmacodynamic Assay I

To address the need to monitor cell responses to DNA damage agents, Trevigen offers a validated ELISA with standards for quantitative analysis. In response to DNA damage, poly(ADP-ribose) polymerases-1 and 2 (PARP-1, PARP-2) are rapidly activated by DNA strand breaks. Once activated, NAD⁺ is consumed for the synthesis of highly negatively charged polymers of ADP-ribose (PAR) on target nuclear proteins that include PARP-1 itself as a major acceptor. These highly branched polymers are in turn rapidly degraded by poly(ADP-ribose) glycohydrolase (PARG). As a consequence of PARP activation, extensive DNA damage can lead to the depletion of NAD⁺ in the cell and lead to cell death. PARP 1 is regarded as a promising target for the development of drugs useful in various regimens for cancer therapy, inflammation, ischemia/reperfusion injury and neuroregeneration. Recently, it has been discovered that breast cancers deficient in homologous recombination are sensitive to nontoxic PARP inhibitors. This has resulted in efforts by numerous pharmaceutical companies to develop PARP I specific drugs.

Features:

- Fewer user steps
- Pre-coated 96 well capture antibody plates
- High signal to noise ratio
- Detection sensitivity of 2 pg/ml of PAR
- Broad linear dynamic range to 1,000 pg/ml
- Reduced inter-assay variability
- Commercially available validated assay that measures drug action on PARP in both in vivo and in vitro settings

Applications:

- Quantification of PAR in peripheral blood mononuclear cells, tissue culture cells, and tumor lysates from different tissues, organs and xenografts.
- Monitoring the efficacy of PARP inhibitors on PAR formation *in vivo*.
- Verifying observations of enhanced cancer cell cytotoxicity arising from PARP inhibitor/anticancer drug combination therapy.
- Facilitating development of PARP and PARG targeted therapeutics

Ordering Information

Description	Size	Catalog #
PARP Pharmacodynamic Assay II	96 Wells	4520-096-K

ANGIOGENESIS • DNA DAMAGE & REPAIR • APOPTOSIS



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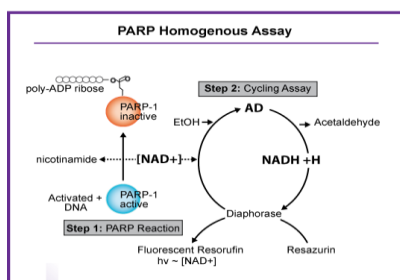
PARP in vivo Pharmacodynamic Assay I

Related Products

Description	Size	Catalog #
HT Universal Chemiluminescent PARP Assay Kit (With Histone Coated Strip Wells)	96 Wells	4676-096-K
HT Universal Colorimetric PARP Assay Kit (With Histone Coated Strip Wells)	96 Wells	4677-096-K
HT Chemiluminescent PARG Assay Kit	96 Wells	4682-096-K
HT Colorimetric PARG Assay Kit	96 Wells	4683-096-K
HT Colorimetric PARP/Apoptosis Assay	96 Wells	4684-096-K
HT Chemiluminescent PARP/Apoptosis Assay	96 Wells	4685-096-K
HT Fluorescent Homogeneous PARP Inhibition Assay	96 Wells	4690-096-K

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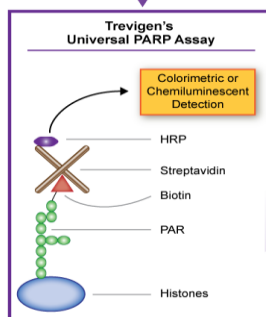
High Throughput Screening for PARP Inhibitors



Recommended use of Trevigen's PARP Kits

Verification of Lead Compounds or Limited Inhibitor Screening Campaigns. Determination of IC50 Values

Determine PARP Activity in Cell Lysates



Evaluation of Inhibitor Behavior In Vivo or in Cultured Cells

