DVS Sciences

Product Information Sheet

Anti-Human cleaved PARP[Asp214]-143Nd

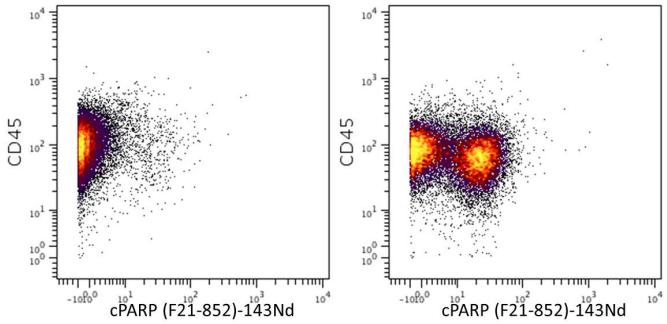
Catalog #: 3143011A
Package Size: 50 tests
Storage: Store product at 4°C. Do not freeze.
Cross Reactivity: Human

Clone: F21-852
Isotype: Mouse IgG1
Formulation: Antibody stabilizer with 0.05% Sodium Azide

Technical Information

Validation: Each lot of conjugated antibody is quality control tested by CyTOF® analysis of stained cells using the appropriate positive and negative cell staining and/or activation controls.

Recommended Usage: The suggested use is 1 µl for up to 3 X 10^6 live cells in 100 µl. It is recommended that the antibody be titrated for optimal performance for each of the desired applications.



Human Jurkat T cells were incubated for 18 hours in media alone (left) or with Etoposide (right). Cells were then fixed, permeabilized, and stained with 143Nd-anti-cPARP (F21-852).

Description

The nuclear protein PARP-1 (Poly [ADP-Ribose] Polymerase), functions as a DNA damage sensor and plays a role in various DNA repair pathways. It has recently been implicated in a variety of cellular functions, including transcriptional regulation. PARP is an enzyme that catalyzes the transfer of ADP-ribose units from NAD+ to a variety of nuclear proteins including topoisomerases, histones and PARP itself. During apoptosis, Caspase-3 cleaves PARP at a recognition site in its DNA-binding domain to form 24- and 89-kDa fragments, and the presence of the 89-kDa PARP cleavage fragment is considered a marker of cells that have undergone apoptosis. The F21-852 monoclonal antibody reacts only with the 89-kDa fragment of human PARP-1 that is downstream of the Caspase-3 cleavage site (Asp214). It does not react with intact human PARP-1. Cross-reactivity with other members of the PARP superfamily is unknown. Recognition of cleaved PARP in mouse cells has been demonstrated, and it may also cross-react with other species.

References

Bandura, D. R., et al. Mass Cytometry: Technique for Real Time Single Cell Multitarget Immunoassay Based on Inductively Coupled Plasma Time-of-Flight Mass Spectrometry. *Analytical Chemistry* 81:6813-6822, 2009.

Behbehani, G.K., et al. Single-cell mass cytometry adapted to measurements of the cell cycle. Cytometry A 81 (7): 552-566, 2012.
Ornatsky, O. I., et al. Highly multiparametric analysis by mass cytometry. J Immunol Methods 361 (1-2):1-20, 2010.

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