Cleaved PARP (Asp214) (D64E10) XP® Rabbit mAb

**Background:** PARP, a 116 kDa nuclear poly (ADP-ribose) polymerase, appears to be involved in DNA repair in response to environmental stress (1). This protein can be cleaved by many ICE-like caspases in vitro (2,3) and is one of the main cleavage targets of caspase-3 in vivo (4,5). In human PARP, the cleavage occurs between Asp214 and Gly215, which separates the PARP amino-terminal DNA binding domain (24 kDa) from the carboxy-terminal catalytic domain (89 kDa) (2,4). PARP helps cells to maintain their viability; cleavage of PARP facilitates cellular disassembly and serves as a marker of cells undergoing apoptosis (6).

**Specificity/Sensitivity:** Cleaved PARP (Asp214) (D64E10) XP® Rabbit mAb detects endogenous levels of the large fragment (89 kDa) of human PARP1 protein produced by caspase cleavage. The antibody does not recognize full length PARP1 or other PARP isoforms.

**Source/Purification:** Monoclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp214 in human PARP.

**Recommended Antibody Dilutions:**
- Western blotting: 1:1000
- Immunoprecipitation: 1:100
- Immunohistochemistry (Paraffin): 1:50†
- Immunoprecipitation: 1:100
- Flow Cytometry: 1:400
- Immunohistochemistry (Paraffin): 1:50†
- Immunoprecipitation: 1:100
- Flow Cytometry: 1:400

**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at −20°C. Do not aliquot the antibody.

**Recommended Dilution:**
- 1:100 for Western blotting
- 1:100 for Immunoprecipitation
- 1:50† for Immunohistochemistry (Paraffin)
- 1:100 for Immunoprecipitation
- 1:400 for Flow Cytometry
- 1:50† for Immunohistochemistry (Paraffin)
- 1:100 for Immunoprecipitation
- 1:400 for Flow Cytometry

**For application specific protocols please see the web page for this product at www.cellsignal.com.**

**Background References:**

**IMPORTANT:** For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Flow cytometric analysis of Jurkat cells, untreated (blue) or etoposide-treated (green), using Cleaved PARP (Asp214) (D64E10) XP® Rabbit mAb.

Immunohistochemical analysis of paraffin-embedded human tonsil using Cleaved PARP (Asp214) (D64E10) XP® Rabbit mAb.