PARP Antibody

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: PARP Antibody detects endogenous levels of full length PARP1 (116 kDa), as well as the large fragment (89 kDa) of PARP1 resulting from caspase cleavage. The antibody does not cross-react with related proteins or other PARP isoforms.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the caspase cleavage site in PARP. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

Recommended Antibody Dilutions:
Western blotting: 1:1000

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

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

Applications Key:
W—Western
IP—Immunoprecipitation
IHIC—Immunohistochemistry
ChIP—Chromatin Immunoprecipitation
IF—Immunofluorescence
FC—Flow cytometry
E-P—ELISA-Peptide

Species Cross-Reactivity Key:
H—human
M—mouse
R—rat
Hm—hamster
Mm—monkey
Mi—mink
C—chicken
Dm—D. melanogaster
X—Xenopus
Z—zebrafish
B—bovine
De—dog
Pg—pig
Sc—S. cerevisiae
Ce—C. elegans
Hr—horse
All—all species expected

Species enclosed in parentheses are predicted to react based on 100% homology.