Revision 1

#9185 Store at -20C

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

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB	H Mk	Endogenous	89	Rabbit IgG	#P09874	142

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA, and 50% glycerol. Store at –20°C. Do not aliquot the antibodies.

Specificity / Sensitivity

Cleaved PARP (Asp214) (D64E10) XP® Rabbit mAb (Biotinylated) 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 antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp214 in human PARP protein.

Product Description

This Cell Signaling Technology antibody is conjugated to biotin under optimal conditions. The biotinylated antibody is expected to exhibit the same species cross-reactivity as unconjugated Cleaved PARP (Asp214) (D64E10) XP® Rabbit mAb #5625.

MW (kDa)	89

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).

Background References

1. Satoh, M.S. and Lindahl, T. (1992) *Nature* 356, 356-358.
2. Lazebnik, Y. A. et al. (1994) *Nature* 371, 346-347.
3. Cohen, G.M. (1997) *Biochem. J.* 326, 1-16.
4. Nicholson, D. W. et al. (1995) *Nature* 376, 37-43.
5. Tewari, M. et al. (1995) *Cell* 81, 801-809.
6. Oliver, F.J. et al. (1998) *J. Biol. Chem.* 273, 33533-33539.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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