

**#9930** Store at -20°C

## Apoptosis Antibody Sampler Kit (Mouse Preferred)

1 Kit (8 x 20 microliters)



**Cell Signaling**  
TECHNOLOGY®

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

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Caspase-3 (D3R6Y) Rabbit mAb	14220	20 µl	35, 19, 17 kDa	Rabbit IgG
Cleaved Caspase-3 (Asp175) (5A1E) Rabbit mAb	9664	20 µl	17, 19 kDa	Rabbit IgG
Caspase-8 Antibody	4927	20 µl	45, 57 kDa	Rabbit
Cleaved Caspase-8 (Asp387) (D5B2) XP® Rabbit mAb	8592	20 µl	18, 43 kDa	Rabbit IgG
Caspase-9 Antibody	9504	20 µl	37, 39, 49 kDa	Rabbit
Cleaved Caspase-9 (Asp353) Antibody	9509	20 µl	37 kDa	Rabbit
Cleaved PARP (Asp214) (7C9) Mouse mAb	9548	20 µl	89 kDa	Mouse IgG2b
Caspase-12 (E9T3W) Rabbit mAb	58208	20 µl	55, 38, 28 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat
Anti-mouse IgG, HRP-linked Antibody	7076	100 µl		Horse

Please visit [cellsignal.com](http://cellsignal.com) for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

### Description

The Apoptosis Antibody Sampler Kit (Mouse Specific) is designed for use with mouse samples and offers an economical means to evaluate the levels of active and inactive caspases. The kit contains enough primary and secondary antibodies to perform two Western blot experiments with each antibody.

### 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.

### Background

Apoptosis is a regulated physiological process leading to cell death. Caspases, a family of cysteine acid proteases, are central regulators of apoptosis. Initiator caspases (including 8, 9, 10, and 12) are closely coupled to proapoptotic signals. Once activated, these caspases cleave and activate downstream effector caspases (including 3, 6, and 7), which in turn cleave cytoskeletal and nuclear proteins like PARP,  $\alpha$ -fodrin, DFF, and lamin A and induce apoptosis. Cytochrome c released from mitochondria is coupled to the activation of caspase-9, a key initiator caspase (1). Proapoptotic stimuli include FasL, TNF- $\alpha$ , DNA damage and ER stress. Fas and TNFR activate caspase-8 and -10 (2), DNA damage leads to the activation of caspase-9 and ER stress leads to the calcium-mediated activation of caspase-12 (3). The inhibitor of apoptosis protein (IAP) family includes XIAP and survivin and functions by binding and inhibiting several caspases (4,5). Smac/Diablo, a mitochondrial protein, is released into the cytosol upon mitochondrial stress and competes with caspases for binding of IAPs. The interaction of Smac/Diablo with IAPs relieves the inhibitory effects of IAPs on caspases (6).

### Background References

1. Baker, S.J. and Reddy, E.P. (1998) *Oncogene* 17, 3261-3270.
2. Budihardjo, I. et al. (1999) *Annu. Rev. Cell Dev. Biol.* 15, 269-290.
3. Nakagawa, T. et al. (2000) *Nature* 403, 98-103.
4. Deveraux, Q. L. et al. (1998) *EMBO J.* 17, 2215-2223.
5. Li, F. et al. (1998) *Nature* 396, 580-584.
6. Du, C. et al. (2000) *Cell* 102, 33-42.

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