Caspase 9 Monoclonal Antibody (10-1-87)

Product Specifications

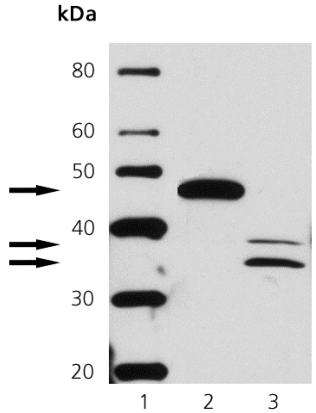
Catalog Number:	905-686-100
Host:	Mouse
Isotype:	IgG_{2a}
Species Reactivity:	Human
Applications: *The optimal dilution for a specific application must be determined by the investigator*	**WB:** 1.0 µg/mL (ECL)
Predicted m.w:	~47 kDa (full length) ~37/35 kDa (cleaved)
Concentration:	See product label
Purification:	Protein G Affinity
Format:	PBS, pH 7.2, 0.09% azide, 50% glycerol
Storage: *Shipping conditions may differ from the recommended storage temperature*	Store at -20°C.
Immunogen:	Recombinant full length human Caspase 9
Related Products:	
905-688-100	Caspase 2 Monoclonal Antibody
907-014	Caspase 3 Fluorometric Detection Kit
AAM-127	Caspase 7 Monoclonal Antibody
900-141	Cytochrome c EIA Kit
900-133	Bcl-2 (total) EIA Kit
900-125	Smac/DIABLO EIA Kit

Background:

Caspase 9 is a member of the cysteine-aspartic acid protease (caspase) family that functions as mediators of apoptosis. Caspases are cytosolic proenzymes, proteolytically cleaved at conserved aspartic residues, producing large and small subunits that dimerize to form the active caspase enzyme. Caspase 9 serves as an initiator caspase in the Bcl-2 directed intrinsic mitochondrial apoptotic pathway, complexing with Apaf-1, cytochrome c, and dATP to form the apoptosome[1]. Activated caspase 9 in the apoptosome can cleave caspases 3, 6, and 7, triggering a cascade toward the execution phase of cell death[2]. Caspase 9 activation and pro-apoptotic activity varies by cell type and apoptotic stimuli. Type II CD95/Fas-mediated apoptosis requires caspase 9 for mitochondrial membrane permeabilization[3], whereas tumor necrosis factor (TNF)-activated caspase 9 can trigger lysosomal permeability and cell death in an apoptosome- and effector caspase-independent manner[4]. Transcription and activation of caspase 9 is enhanced by HIV-1 viral protein R (vpr), suggesting a role in the bystander killing effect of HIV-1 infected cells[5].

References:

1. Wang, X. (2001) Genes Dev. **15**, 2922-2933.
2. Fischer, U., *et al.* (2003) Cell Death Differ. **10**, 76-100.
3. Samraj, A.K., *et al.* (2006) J Biol Chem. **281**, 29652-29659.
4. Gyrd-Hansen, M., *et al.* (2006) Mol Cells Biol. **26**, 7880-7891.
5. Moon, H.S. and Yang, J.S. (2006) Mol Cells **21**, 7-20.



Western blot analysis of MW marker (1), Jurkat (2), and Jurkat + staurosporine (3) cells probed with Caspase 9 Monoclonal Antibody (10-1-87)

5777 Hines Drive • Ann Arbor, MI • 48108 | Tel: 800-833-8651 or 734-668-6113 | Fax: 734-668-2793
www.assaydesigns.com | orders@assaydesigns.com | technical@assaydesigns.com

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