



## ***DB081: caspase-9 p10 (I18)***

### **Background:**

The activation of the initiator caspase, caspase-9, is regulated by the apoptosome, which is composed of cytochrome c bound to Apaf-1 and dATP (1&2). The apoptosome responds to a diverse array of apoptotic stimuli that initiate the caspase cascade that ultimately results in cell death. The cascade of events starts with the proteolytic cleavage of caspase-9, that then cleaves downstream caspases, caspase-3, -6, and -7 (1). The apoptotic initiating activity of caspase-9 can be regulated by XIAP, X-linked inhibitor-of-apoptosis protein; through the binding of caspase-9 at its amino terminus while it is bound to the apoptosome (3 & 4). This inhibition of caspase-9 activity has been shown to be relieved by Smac/DIABLO through its interaction with XIAP (3).

### **Origin:**

caspase-9 p10 (I18) is provided as an affinity purified rabbit polyclonal antibody, raised against a peptide mapping to an internal domain of human caspase-9 p10 subunit.

### **Product Details:**

Each vial contains 200 µg/ml of affinity purified rabbit IgG, caspase-9 p10 (I18) DB081, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

### **Competition Studies:**

A blocking peptide is also available, DB081P, for use in competition studies. Each vial contains 100 µg of peptide in 0.5 ml PBS with 0.1% sodium azide and 100 µg BSA.

### **Specificity:**

caspase-9 p10 (I18) is recommended to detect mouse, rat and human caspase-9 p10 subunit and the caspase-9 precursor by western blotting. Recommended western blotting starting dilution 1:200.

### **Storage:**

Store this product at 4° C, do not freeze. The product is stable for one year from the date of shipment.

### **References:**

1. Kuida K. 2000. Caspase-9. *Int J Biochem Cell Biol.* 32(2):121-124.
2. Potokar M, Milisav I, Kreft M, Stenovec M, Zorec R. 2003. Apoptosis triggered redistribution of caspase-9 from cytoplasm to mitochondria. *FEBS Lett.* 544(1-3):153-159.
3. Srinivasula SM, Hegde R, Saleh A, Datta P, Shiozaki E, Chai J, Lee RA, Robbins PD, Fernandes-Alnemri T, Shi Y, Alnemri ES. 2001. A conserved XIAP-interaction motif in caspase-9 and Smac/DIABLO regulates caspase activity and apoptosis. *Nature* 410(6824):112-116.
4. Zou H, Yang R, Hao J, Wang J, Sun C, Fesik SW, Wu JC, Tomaselli KJ, Armstrong RC. 2003. Regulation of the Apaf-1/caspase-9 apoptosome by caspase-3 and XIAP. *J Biol Chem.* 278(10):8091-8098.

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