



## ***DB008: caspase-3 (A20)***

### **Background:**

Caspases is a family of mammalian proteases that regulate many of the morphological and biochemical features of apoptosis. The currently identified caspases can be divided into three groups: apoptotic initiators, apoptotic executioners, and inflammatory mediators (1,2). Caspase-2, 8, and 9 have been identified as apoptotic initiators (3,4). Caspase-2 (also designated Nedd-2/ICH-1) can be alternatively spliced to produce two distinct Caspase-2 mRNA species. One mRNA species encodes a protein of 435 amino acids in length and the mRNA splice variant encodes a 312 amino acid protein. The larger protein, Caspase-2<sub>L</sub>, in an over expressed state, leads to programmed cell death. Conversely the over expression of Caspase-2<sub>S</sub> protein, a truncated version of Caspase-2<sub>L</sub>, has been shown to suppress cell death induced by serum deprivation (5). The executioner caspases include caspase-3, 6 and 7. Of these three proteases Caspase-3 is considered to be the essential for the chromatin margination, DNA fragmentation, and nuclear collapse during apoptosis (6). Caspase-1 (also known as ICE) is considered to be a mediator of the inflammatory response by converting the inactive precursor of interleukin-1 $\beta$  to the 17 kDa proinflammatory cytokine, IL-1 $\beta$  (7,8).

### **Origin:**

Caspase-3 (also known as CPP32) is provided as an affinity purified rabbit polyclonal antibody, raised against a peptide mapping to the amino terminus of human caspase-3 precursor.

### **Product Details:**

Each vial contains 200  $\mu$ g/ml of affinity purified rabbit IgG, caspase-3 *DB008 (A20)*, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

### **Competition Studies:**

A blocking peptide is also available, *DB008P*, for use in competition studies. Each vial contains 100  $\mu$ g of peptide in 0.5 ml PBS with 0.1% sodium azide and 100  $\mu$ g BSA.

### **Specificity:**

Caspase-3 *DB008 (A20)* reacts with caspase-3 precursor of human origin by western blotting, immunoprecipitation and immunohistochemistry. Western blotting starting dilution: 1:400.

### **Storage:**

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

### **References:**

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