



## ***DB004: Bag-1 (C16)***

### **Background:**

Bcl-2 family of proteins is a key regulator of apoptosis that function to either inhibit or promote cell death. The over expression of members such as Bcl-2 and Bcl-xL inhibit the apoptotic process (1,2). The Bcl-2 family members are also characterized by dimerizing to further modulate apoptosis. Bag-1, for example, has been found to form a heterodimer with Bcl-2 resulting in the enhancement of the anti-apoptotic effect of Bcl-2 (3,4). Other anti-apoptotic Bcl-2 family members include A1, Bcl-x $\gamma$ , Bcl-x $\beta$ , Mcl-1, BAR, BI-1 and Bcl-w (5). The pro-apoptotic family members include Bax, Bcl-xS, Bad, Bak, NBK, BID, Hrk, Bok, Bim, Noxa and Diva. Bax and Bak have been shown to play a critical role in cytochrome c release from mitochondria and thus initiate apoptosis (6). Bad plays a critical role in the Bax-mediated apoptosis pathway by dimerizing with Bcl-xL, causing the displacement of Bax. The displacement of Bax allows apoptosis to proceed (7). Bcl-xS, a shorter version of Bcl-xL (lacking amino acids 126-188), apparently utilizes a different pathway than Bax to induce cell death. Some research suggests that Bcl-xS uses a novel mechanism for regulating caspase or it may use an alternate cell death effector pathway (8,9).

### **Origin:**

Bag-1 is provided as an affinity purified rabbit polyclonal antibody, raised against a peptide mapping to the carboxy terminus of mouse Bag-1.

### **Product Details:**

Each vial contains 200  $\mu$ g/ml of affinity purified rabbit IgG, Bag-1 *DB004 (C16)*, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

### **Competition Studies:**

A blocking peptide is also available, *DB004P*, 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:**

Bag-1 *DB004 (C16)* reacts with Bag-1 of mouse, rat and human origin by western blotting and immunohistochemistry. Recommended starting dilution for western blotting: 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:**

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