DB003: Bad (A17)

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-xγ, Bcl-xβ, 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 displacment 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:

Bad is provided as an affinity purified rabbit polyclonal antibody, raised against a peptide mapping to the amino terminus of mouse Bad.

Product Details:

Each vial contains 200 µg/ml of affinity purified rabbit IgG, Bad *DB003 (A17)*, in 1 ml PBS containing 0.1 % sodium azide and 0.2% gelatin.

Competition Studies:

A blocking peptide is also available, *DB003P*, 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:

Bad *DB003(A17)* reacts with Bad of mouse and rat origin by western blotting and immunohistochemistry.

Storage:

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

References:

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9. Lindenboim L, Yuan J, Stein R. 2000. Bcl-xS and Bax induce different apoptotic pathways in PC12 cells. Oncogen 19(14): 1783-1793

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