



## Bad (FL): sc-4702

### BACKGROUND

The Bcl-2 family of proteins is characterized by its ability to modulate cell death (apoptosis) under a broad range of physiologic conditions. Bcl-2 and several related proteins function to inhibit apoptosis, while other members of the Bcl-2 family, such as Bax and Bak, enhance cell death under various conditions. For instance, Bcl-x<sub>L</sub> represses cell death, while its shorter form, Bcl-x<sub>S</sub>, promotes apoptosis. A protein designated Bad exhibits homology to Bcl-2, limited to the BH1 and BH2 domains. Bad functions to dimerize with Bcl-x<sub>L</sub> and with Bcl-2, but not with Bax, Bcl-x<sub>S</sub>, Mcl-1, A1 or itself. In mammalian cells, Bad binds with greater affinity to Bcl-x<sub>L</sub> than to Bcl-2, and reverses the death repressor activity of Bcl-x<sub>L</sub> but not Bcl-2. Dimerization of Bad with Bcl-x<sub>L</sub> results in displacement of Bax from Bcl-x<sub>L</sub>:Bax complexes, thereby causing restoration of Bax-mediated apoptosis.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: BAD (human) mapping to 11q13.1; Bad (mouse) mapping to 19 A.

### SOURCE

Bad (FL) is expressed in *E. coli* as a 45 kDa tagged fusion protein corresponding to amino acids 1-168 representing full length Bad of human origin.

### PRODUCT

Bad (FL) is purified from bacterial lysates (>98%) by glutathione agarose affinity chromatography; supplied as 50 µg purified protein in PBS containing 5 mM DTT and 50% glycerol.

### APPLICATIONS

Bad (FL) is suitable as Western blotting control for sc-942, sc-6541, sc-6542, sc-7869 and sc-8044.

### STORAGE

Store at -20° C; stable for one year from the date of shipment.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.