

20-1010: Polyclonal antibody to Bad

Clonality :	Polyclonal
Application :	IP,IHC,WB
Reactivity :	Rat,Human
Gene :	BAD
Gene ID :	572
Uniprot ID :	Q92934
Format :	Sera
Alternative Name :	BAD,BBC6,BCL2L8
Isotype :	Rabbit IgG
Immunogen Information :	A full length recombinant protein of human Bad was used as immunogen

Description

The Bcl-2 families of apoptosis-related genes plays central roles in regulating apoptotic pathways. Regulation of cell death through apoptosis is critical for the maintenance of homeostasis, defense against infectious agents, and normal development. Cellular homeostasis is thought to be dependent on a balance between the actions of prosurvival and proapoptotic proteins. Bcl-2 family proteins can be divided into 3 main subfamilies on the basis of their function and the content of their Bcl-2 homology (BH) domains, for example: 1) Prosurvival: Bcl-2, Bcl-XL, Bcl-W, A1, and Mcl-1 2) Proapoptotic (multidomain): Bax, Bak, and Bok. 3) BH3-only (proapoptotic): Bad, Bcl-XS, Bid, Bik, Bim, Blk, Bmf, Bnip, Noxa, and Puma. Human Bad is a 168 amino acid protein. The prosurvival members inhibit cells from undergoing apoptosis, whereas proapoptotic and BH3-only subfamily members promote apoptosis. There are 4 BH domains (1-4) conserved among Bcl-2 family proteins. The BH domains are important for function as well as for heterodimerization between family members. Typical prosurvival family members have all four BH domains (1-4), whereas proapoptotic (multidomain) members have BH1, 2 and 3 domains and BH3-only members have only the BH3 domain. Overall, the relative ratio of prosurvival and proapoptotic proteins determines the susceptibility of a cell to various apoptotic stimuli. Alterations in the ratio or levels of Bcl-2 family proteins have been also associated with nonmalignant diseases including neurodegenerative diseases, autoimmune diseases, AIDs, Downs syndrome, cardiovascular diseases, diabetes, glomerulonephritis, and muscular dystrophy.

Product Info

Amount :	50 μ l
Content :	50 μ l sera
Storage condition :	Store the antibody at 4°C, stable for 6 months. For long-term storage, store at -20°C. Avoid repeated freeze and thaw cycles.

Application Note

WB: 1:1000-1:2500, IHC (paraffin): 1:1000-1:5000, IHC (frozen): Users should optimize, IP: 1:50-1:200

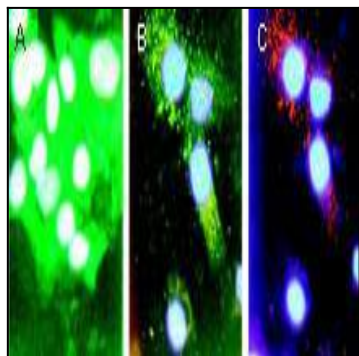


Figure-1: Immunofluorescence microscopy of BAD using 20-1010 at 1:2000. Du145 human prostate carcinoma cells were cultured without (A) or with (B and C) 1 μ M of the triphosphatase inhibitor thapsigargin (THG) for 12 hr. A and B, staining with BAD antibody, followed by a FITC-conjugated secondary antibody. C, staining with a mitochondrial marker (antibody to mitochondrial Hsp60), followed by a rhodamine-conjugated secondary antibody. THG induces Ca^{2+} release from internal stores which can promote apoptosis. BAD staining was located diffusely throughout the cytoplasm of untreated cells (A), and localized to the mitochondria in treated cells (B).

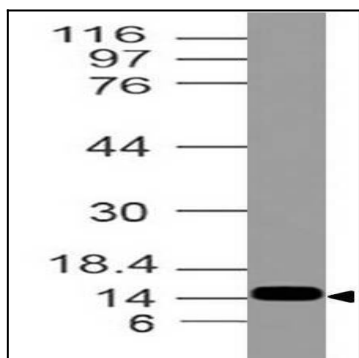


Figure-2: Western blot analysis of Bad. Anti-Bad antibody (20-1010) was used with 1:2500 dilution on r Liver lysate.