

20-1022: Polyclonal antibody to Bax

Clonality :	Polyclonal
Application :	IP,IHC,WB
Reactivity :	Mouse,Human
Gene :	BAX
Gene ID :	581
Uniprot ID :	Q07812
Format :	Sera
Alternative Name :	BAX,BCL2L4
Isotype :	Rabbit IgG
Immunogen Information :	A synthetic peptide of Bax protein (amino acids 43-61 PELALDPVPQDASTKKLSE) was used as the immunogen for this antibody

Description

This antibody reacts with an epitope (PELALDPVPQDASTKKLSE) which is 100% conserved in human Bax isoforms alpha (192 amino acids), beta (218 amino acids), epsilon (164 amino acids), sigma (179 amino acids), and psi (173 amino acids). The Bcl-2 family 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. Bcl-2 family proteins regulate apoptosis primarily through the regulation of mitochondrial outer membrane permeability. In mammals, 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. Cellular homeostasis is thought to be dependent on a balance between the actions of prosurvival and proapoptotic proteins. Many Bcl-2 family proteins are differentially expressed in various malignancies and some are useful prognostic biomarkers. Prosurvival proteins are often elevated in diverse cancers and have the potential to confer resistance to both endogenous cell death stimuli and cancer treatments. 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 µl
Content :	50 µl 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: 1:1000-1:2000, IHC (paraffin): 1:1000-1:5000, IHC (frozen): Users should optimize, IP: 1:50-1:200

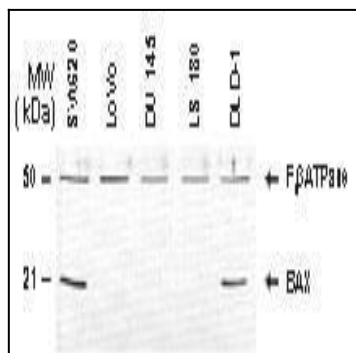


Fig:1 Western blot analysis of BAX in colon tumor cell lines using 20-1022. Bax is detected in the SW620 and DLD-1 cell lines. However, Bax was not detected in the cell lines (LoVo, DU145, and LS180) known to have frameshift mutations in Bax (Rampino et al. 1997). An antibody to F1BAPase was used as a protein loading control.

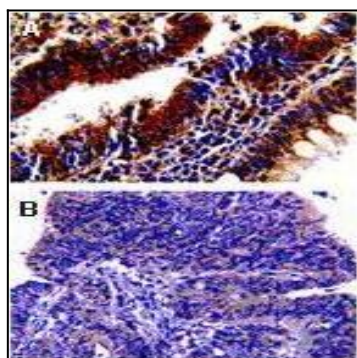


Fig:2 Formalin-fixed, paraffin-embedded sections of human colon cancer from a tissue microarray stained for BAX using 20-1022 at 1:2000. A. High Bax expression. B. Low Bax expression. Hematoxylin-eosin counterstain.



Fig:3 Formalin-fixed, paraffin-embedded section of a human colon cancer tissue microarray stained for BAX using 20-1022 at 1:2000. Hematoxylin-eosin counterstain.