

20-1032: Polyclonal antibody to Bcl-xL

Clonality :	Polyclonal
Application :	WB,IHC,IP
Reactivity :	Gerbil,Human,Mouse,Rat
Gene :	BAD
Gene ID :	572
Uniprot ID :	Q92934
Format :	Sera
Alternative Name :	BAD,BBC6,BCL2L8
Isotype :	Rabbit IgG
Immunogen Information :	A synthetic peptide of Bcl-xL protein (amino acids 61-79 DSPAVNGATAHSSSLDARE) was used as the immunogen for this antibody

Description

The Bcl-2 family of apoptosis-related genes plays central roles in regulating apoptotic pathways (reviewed in Thomadaki and Scorilas, 2006). 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, the family consists of both prosurvival (antiapoptotic) and proapoptotic (prodeath) members. 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. 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. 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, Down's syndrome, cardiovascular diseases, diabetes, glomerulonephritis, and muscular dystrophy. This antibody recognizes Bcl-XL and Bcl-XS. Human Bcl-XL is a 233 amino acid protein and Bcl-XS is a 170 amino acid protein.

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: 1:1000-1:2000, IHC (paraffin): 1:1000-1:5000, IHC (frozen): Users should optimize, IP: 1:50-1:200

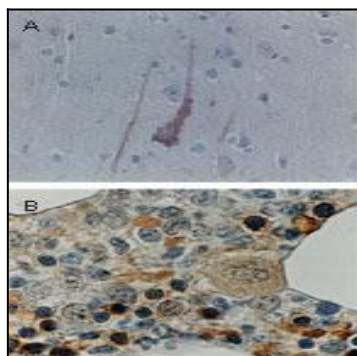


Fig:1 Formalin-fixed paraffin- embedded human tissue sections stained for Bcl-X expression using 20-1032 at 1:2000. A. Cortex from the brain of an Alzheimer's disease patient. The degenerating neurons are positive for BclX expression, the intact neurons are not. B. Normal bone marrow. The cells positive for Bcl-X expression appear to be of erythropoietic lineage. Hematoxylin-eosin counterstain.

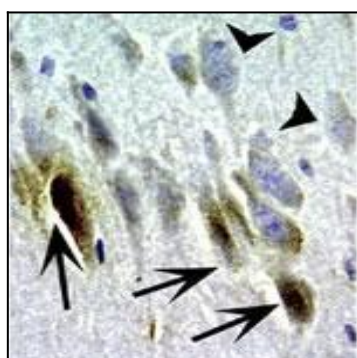


Fig:2 Formalin-fixed paraffin-embedded section of dog ischemic brain cortex stained for Bcl-X expression using 20-1032 at 1:2000. At 2 hr post ischemia, Bcl-X staining was seen in the dying neurons that had morphological features of apoptosis (arrows). In contrast, morphologically normal appearing neurons lacked Bcl-X staining (arrowheads). Hematoxylin-eosin counterstain.