

20-1027: Polyclonal antibody to Bcl-2

Clonality :	Polyclonal
Application :	WB,IHC,IP
Reactivity :	Mouse
Gene :	BCL2
Gene ID :	596
Uniprot ID :	P10415
Format :	Sera
Alternative Name :	BCL2
Isotype :	Rabbit IgG
Immunogen Information :	A synthetic peptide of Bcl-2 protein (amino acids 67-86) 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.

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 Formalin-fixed paraffin-embedded section from a secondary follicle of the mouse lymph node stained for Bcl-2 expression using 20-1027 at 1:2000. A, Abundant staining is seen in the mantle zone, and little staining is seen in the germinal center. A1 is a higher magnification of A.