

20-1035: Polyclonal antibody to BID

Clonality :	Polyclonal
Application :	WB,IHC,IP
Reactivity :	Gerbil,Human,Mouse,Rat
Gene :	BID
Gene ID :	637
Uniprot ID :	P55957
Format :	Sera
Alternative Name :	BID
Isotype :	Rabbit IgG
Immunogen Information :	A synthetic peptide of BID protein (amino acids 28-50 CSDNSFRRELDALGHELPVLAPQ) 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. Recognizes Bid (approx. 19-23 kDa) Bid. It also recognizes cleaved/truncated forms which contain amino acids 28-55. The C-terminal cleaved/truncated form (11-15 kDa), often referred as tBid in the literature, is not predicted to contain amino acids 28-55 (reviewed in Yin, 2006). However, this antibody may recognize tBid in cases where the smaller N-terminal portion (containing amino acids 1-55) of Bid has not separated from the larger C-terminal portion.

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

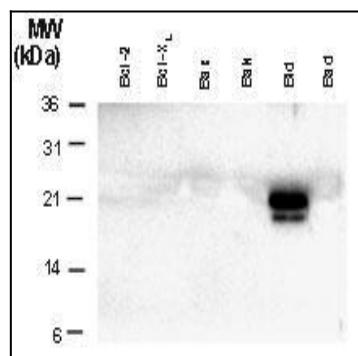


Fig:1 Western blot analysis of Bid using 20-1035 at 1:2000. Detected in vitro translated Bid, but not in vitro translated Bcl-2, Bcl-XL, Bax, or Bak. These results show that 20-1035 is specific for Bid and does not crossreact with other Bcl-2 family members

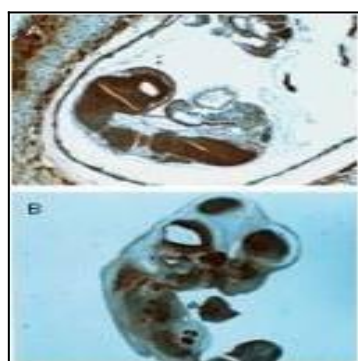


Fig:2 Formalin-fixed, paraffin-embedded mouse embryos stained for Bid using 20-1035 at 1:2000. A. Intrauterine embryo at E.95 dpc (days post conception). B. 10.5-11 dpc embryo isolated from the yolk sac. Hematoxylin-eosin counterstain.

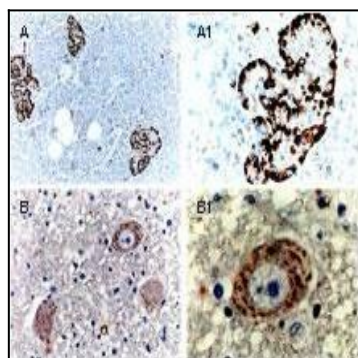


Fig:3 Formalin-fixed, paraffin-embedded human tissue sections stained for Bid using 20-1035 at 1:2000. A and A1, Adult pancreas. B and B1, Adult mesencephalon (midbrain). A1 and B1 are higher magnifications of A and B, respectively. Hematoxylin-eosin counterstain.