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Bax Antibody

Catalog # ASC10254

Product Information

Application	WB, IF, IP, ICC, E
Primary Accession	Q07812
Other Accession	AAA03619, 388166
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	21184
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Bax antibody can be used for detection of Bax by Western blot at 1 to 4 g/mL. Antibody can also be used for immunocytochemistry starting at 2 g/mL. For immunofluorescence start at 2 g/mL.

Additional Information

Gene ID	581
Other Names	Bax Antibody: BCL2L4, BCL2L4, Apoptosis regulator BAX, Bcl-2-like protein 4, Bcl2-L-4, BCL2-associated X protein
Target/Specificity	BAX;
Reconstitution & Storage	Bax antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	Bax Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BAX
Synonyms	BCL2L4
Function	Plays a role in the mitochondrial apoptotic process (PubMed: 10772918, PubMed:11060313, PubMed:16113678, PubMed:16199525, PubMed:18948948, PubMed:21199865, PubMed:21458670, PubMed:25609812, PubMed:36361894, PubMed:8358790, PubMed:8521816). Under normal conditions, BAX is largely cytosolic via constant retrotranslocation from mitochondria to the cytosol mediated by BCL2L1/Bcl-xL, which avoids accumulation of toxic BAX levels at the

	mitochondrial outer membrane (MOM) (PubMed:21458670). Under stress conditions, undergoes a conformation change that causes translocation to the mitochondrion membrane, leading to the release of cytochrome c that then triggers apoptosis (PubMed:10772918, PubMed:11060313, PubMed:16113678, PubMed:16199525, PubMed:18948948, PubMed:21199865, PubMed:21458670, PubMed:25609812, PubMed:8358790, PubMed:8521816). Promotes activation of CASP3, and thereby apoptosis (PubMed:10772918, PubMed:11060313, PubMed:16113678, PubMed:16199525, PubMed:18948948, PubMed:21199865, PubMed:21458670, PubMed:25609812, PubMed:8358790, PubMed:8521816).
Cellular Location	[Isoform Alpha]: Mitochondrion outer membrane; Single-pass membrane protein. Cytoplasm. Nucleus Note=Colocalizes with 14-3-3 proteins in the cytoplasm. Under stress conditions, undergoes a conformation change that causes release from JNK-phosphorylated 14-3-3 proteins and translocation to the mitochondrion membrane. Upon Sendai virus infection, recruited to the mitochondrion through interaction with IRF3 (PubMed:25609812) [Isoform Gamma]: Cytoplasm.
Tissue Location	Expressed in a wide variety of tissues. Isoform Psi is found in glial tumors. Isoform Alpha is expressed in spleen, breast, ovary, testis, colon and brain, and at low levels in skin and lung Isoform Sigma is expressed in spleen, breast, ovary, testis, lung, colon, brain and at low levels in skin. Isoform Alpha and isoform Sigma are expressed in pro-myelocytic leukemia, histiocytic lymphoma, Burkitt's lymphoma, T-cell lymphoma, lymphoblastic leukemia, breast adenocarcinoma, ovary adenocarcinoma, prostate carcinoma, prostate adenocarcinoma, lung carcinoma, epidermoid carcinoma, small cell lung carcinoma and colon adenocarcinoma cell lines

Background

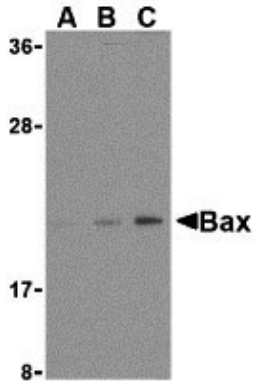
Bax Antibody: Apoptosis plays a major role in normal organism development, tissue homeostasis, and removal of damaged cells. Disruption of this process has been implicated in a variety of diseases such as cancer. The Bcl-2 family of proteins is comprised of critical regulators of apoptosis that can be divided into two classes: those that inhibit apoptosis and those that promote cell death. Bax, a pro-apoptotic Bcl-2 family member, is a cytosolic protein that changes conformation and translocates to the mitochondria following apoptotic stimuli. It is thought to share significant functional homology with Bak, another pro-apoptotic Bcl-2 family member, as disruption of bax or bak has little effect on cell death, but mice lacking both genes display multiple developmental defects and cells lacking both show decreased apoptotic capability.

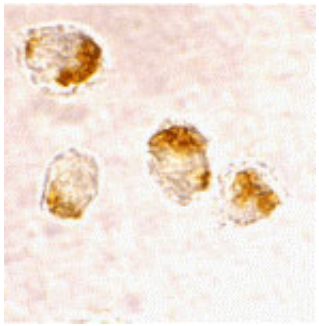
References

Lockshin RA, Osborne B, and Zakeri Z. Cell death in the third millennium. Cell Death Differ. 2000; 7:2-7.
Cory S, Huang DCS, and Adams JM. The Bcl-2 family: roles in cell survival and oncogenesis. Oncogene 2003; 22:8590-607.
Heiser D, Labi V, Erlacher M, et al. The Bcl-2 protein family and its role in the development of neoplastic disease. Exp. Geron. 2004; 39:1125-35.
Oltvai ZN, Milliman CL, and Korsmeyer SJ. Bcl-2 heterodimerizes in vivo with a conserved homolog, Bax, that accelerates programmed cell death. Cell 1993; 74:609-19.

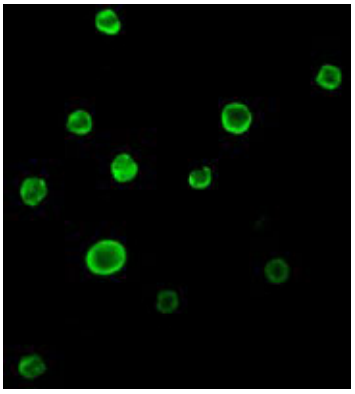
Images

Western blot analysis of Bax in HL-60 cell lysates with Bax antibody at (A) 1, (B) 2, and (C) 4 µg/mL.





Immunocytochemistry staining of HL-60 cells using Bax at 2 µg/mL.



Immunofluorescence of Bax in HL60 cells with Bax antibody at 2 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.