10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

BAX Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM2087b

Product Information

Application	WB, E
Primary Accession	Q07812
Other Accession	NP_004315.1
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Clone Names	557CT5.2.1
Calculated MW	21184
Antigen Region	28-56

Additional Information

Gene ID	581
Other Names	Apoptosis regulator BAX, Bcl-2-like protein 4, Bcl2-L-4, BAX, BCL2L4
Target/Specificity	This BAX antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 28-56 amino acids from human BAX .
Dilution	WB~~1:500~1:1000 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
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

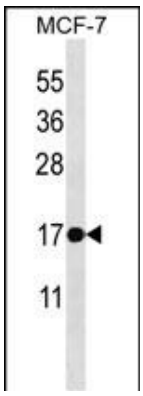
The protein encoded by this gene belongs to the BCL2 protein family. BCL2 family members form hetero- or homodimers and act as anti- or pro-apoptotic regulators that are involved in a wide variety of cellular activities. This protein forms a heterodimer with BCL2, and functions as an apoptotic activator. This protein is reported to interact with, and increase the opening of, the mitochondrial voltage-dependent anion channel (VDAC), which leads to the loss in membrane potential and the release of cytochrome c. The expression of this gene is regulated by the tumor suppressor P53 and has been shown to be involved in P53-mediated apoptosis. Multiple alternatively spliced transcript variants, which encode different isoforms, have been reported for this gene.

References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Montessuit, S., et al. Cell 142(6):889-901(2010)
Ding, J., et al. J. Biol. Chem. 285(37):28749-28763(2010)
Ho-Pun-Cheung, A., et al. Pharmacogenomics J. (2010) In press :
Yu, D.K., et al. Zhonghua Zhong Liu Za Zhi 32(5):324-327(2010)

Images

BAX Antibody(Cat. #AM2087b) western blot analysis in MCF-7 cell line lysates (35µg/lane).This demonstrates the



BAX antibody detected the BAX protein (arrow).