

Product name:	Bax (phospho Thr167) Rabbit Polyclonal Antibody
Cat number:	ABN04302
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human Bax around the phosphorylation site of Thr167. AA range:133-182
Reactivity:	Human,Mouse,Rat
Applications:	ICC/IF 1:200-1:1000,ELISA 1:20000-1:40000
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

The protein encoded by BAX (BCL2 associated X, apoptosis regulator) 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 BAX.

disease: Defects in BAX are found in some cell lines from hematopoietic malignancies as T-cell acute lymphoblastic leukemia, Burkitt lymphoma, and plasmacytoma.

domain: Intact BH3 motif is required by BIK, BID, BAK, BAD and BAX for their pro-apoptotic activity and for their interaction with anti-apoptotic members of the Bcl-2 family.

function: Accelerates programmed cell death by binding to, and antagonizing the apoptosis repressor BCL2 or its adenovirus homolog E1B 19k protein. Induces the release of cytochrome c, activation of CASP3, and thereby apoptosis.

similarity: Belongs to the Bcl-2 family.

subcellular location: Colocalizes with 14-3-3 proteins in the cytoplasm. Under stress conditions, redistributes to the mitochondrion membrane through the release from JNK-phosphorylated 14-3-3 proteins.

subunit: Homodimer. Forms heterodimers with BCL2, E1B 19K protein, BCL2L1 isoform Bcl-X(L), MCL1 and A1. Interacts with SH3GLB1 and HN. Interacts with SFN and YWHAZ; the interaction occurs in the cytoplasm. Under stress conditions, JNK-mediated phosphorylation of SFN and YWHAZ, releases BAX to mitochondria. Isoform Sigma interacts with BCL2A1 and BCL2L1 isoform Bcl-X(L).

tissue specificity: 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.