

Bax (PTR1159) mouse mAb

Catalog No: YM3619

Reactivity: Human;

Applications: WB;ELISA

Target: Bax

Fields: >>EGFR tyrosine kinase inhibitor resistance;>>Endocrine

resistance;>>Platinum drug resistance;>>Sphingolipid signaling pathway;>>p53

signaling pathway;>>Protein processing in endoplasmic

reticulum;>>Apoptosis;>>Longevity regulating pathway;>>Apoptosis - multiple species;>>Necroptosis;>>Neurotrophin signaling pathway;>>Non-alcoholic fatty

liver disease;>>AGE-RAGE signaling pathway in diabetic complications;>>Parkinson disease;>>Amyotrophic lateral sclerosis;>>Huntington disease;>>Prion disease;>>Pathways of neurodegeneration - multiple diseases;>>Pathogenic Escherichia coli infection;>>Shigellosis;>>Salmonella infection;>>Tuberculosis;>>Hepatitis C;>>Hepatitis B;>>Measles;>>Human cytomegalovirus infection;>>Influenza

A;>>Human papillomavirus infection;>>Human T-cell leukemia virus 1

infection;>>Kaposi sarcoma-associated herpesvirus infection;>>Herpes simplex virus 1 infection;>>Epstein-Barr virus infection;>>Human immunodeficiency virus

1 infection;>>Pathways in cancer;>>Transcriptional

Gene Name: BAX

Protein Name: BAX

Human Gene Id: 581

Human Swiss Prot

No:

Immunogen: Synthesized peptide derived from human Bax AA range: 50-150

Specificity: This antibody detects endogenous levels of BAX.

Formulation: PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA

Source: Monoclonal, Mouse IgG1, Kappa

Q07812

1/4



Dilution: WB 1:500-1000, ELISA 1:5000-20000

Purification: Protein G

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight: 21kD

Observed Band: 21kD

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.

Function:

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

Subcellular Location:

[Isoform Alpha]: Mitochondrion outer membrane; Single-pass membrane protein. Cytoplasm. 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 Beta]: Cytoplasm.; [Isoform Gamma]: Cytoplasm.; [Isoform Delta]: Cytoplasm.

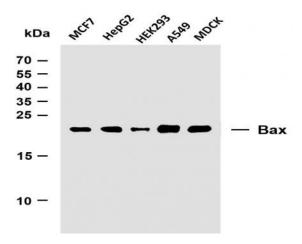
Expression:

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,

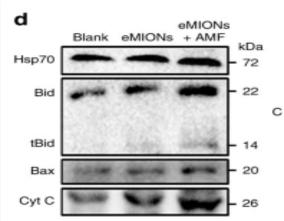


Burkitt's lymphoma, T-cell lymphoma, lymphoblastic leukemia, breast adenocarcinoma, ovary adenocarcinoma, prostate carcinoma, prostate adenocarcinoma, lung carcinoma, epidermoid carcinoma, small cell lung carcinoma and colon adenocarcinoma cell lines.

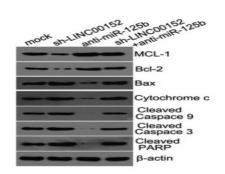
Products Images



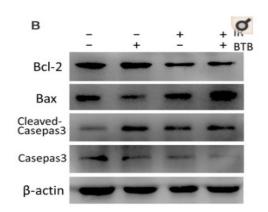
Various whole cell lysates were separated by 15% SDS-PAGE, and the membrane was blotted with anti-Bax (PTR1159) antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: MCF7 Lane 2: HepG2 Lane 3: HEK293 Lane 4: A549 Lane 5: MDCK Predicted band size: 21kDa Observed band size: 21kDa



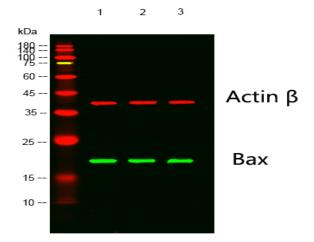
Zhang, Y., Wang, X., Chu, C. et al. Genetically engineered magnetic nanocages for cancer magneto-catalytic theranostics. Nat Commun 11, 5421 (2020).



Chen, Puxiang, et al. "Long noncoding RNA LINC00152 promotes cell proliferation through competitively binding endogenous miR-125b with MCL-1 by regulating mitochondrial apoptosis pathways in ovarian cancer." Cancer medicine 7.9 (2018): 4530-4541.

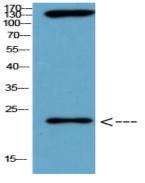


Wang, Yupei, et al. "Selective ATP hydrolysis inhibition in F1Fo ATP synthase enhances radiosensitivity in non-small-cell lung cancer cells (A549)." Oncotarget 8.32 (2017): 53602.



Western blot analysis of lysates from 1) Hela Cell Lysate, 2) C2C12 Cell Lysate, 3) PC12 Cell Lysate cells, (Green) primary antibody was diluted at 1:1000, 4°over night,Dylight 800 secondary antibody(Immunoway:RS23910)was diluted at 1:10000, 37° 1hour. (Red) Actin β Polyclonal Antibody (Immunoway:YT0099) antibody was diluted at 1:5000 as loading control, 4° over night,Dylight 680 secondary antibody(Immunoway:RS23720)was diluted at 1:10000, 37° 1hour.

Western Blot analysis of chicken cell lysis using Antibody diluted



at 1:1000

chicken cell lysis