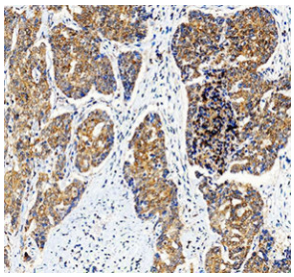
Bax Antibody / BCL2 Associated X Protein Antibody (R30183)

Catalog No.	Formulation	Size
R30183	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

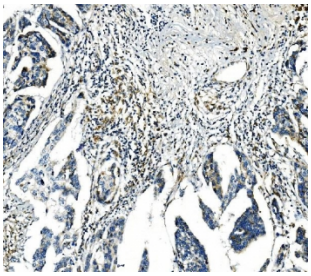
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	Q07812
Applications	Western blot: 0.5-1ug/ml Flow cytometry: 1-3ug/million cells Immunohistochemistry (FFPE): 2-5ug/ml Immunofluorescence: 5ug/ml Immunoprecipitation: 2ug per 500ug of lysate
Limitations	This Bax Antibody / BCL2 Associated X Protein Antibody is available for research use only.



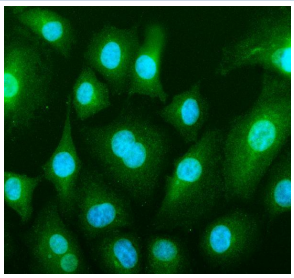
Bax Antibody Human Liver Cancer IHC. Immunohistochemical staining of FFPE human liver cancer tissue with Bax antibody at 2 ug/ml. Heat-induced epitope retrieval (HIER) was performed by boiling tissue sections in pH 8 EDTA buffer prior to staining. Bax immunoreactivity is observed predominantly within the cytoplasm of malignant hepatocytes, consistent with the expected localization of BCL2 Associated X Protein, a pro-apoptotic BCL2 family member that translocates to the mitochondrial outer membrane following cellular stress to initiate the intrinsic apoptotic pathway. Cell nuclei are counterstained with hematoxylin (blue).



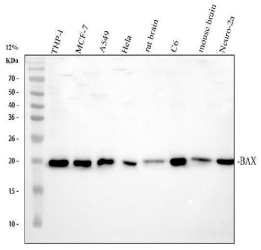
Bax Antibody Human Tonsil IHC. Immunohistochemical staining of FFPE human tonsil tissue with Bax antibody at 2 ug/ml. Heat-induced epitope retrieval (HIER) was performed by boiling tissue sections in pH 8 EDTA buffer prior to staining. Bax immunoreactivity is observed predominantly within the cytoplasm of lymphoid cells, consistent with the expected localization of this apoptosis regulator and pro-apoptotic BCL2 family protein that promotes mitochondrial outer membrane permeabilization and programmed cell death in response to cellular stress. Cell nuclei are counterstained with hematoxylin (blue).



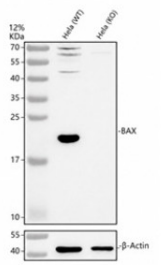
Bax Antibody Human Ovarian Cancer IHC. Immunohistochemical staining of FFPE human ovarian cancer tissue with Bax antibody at 2 ug/ml. Heat-induced epitope retrieval (HIER) was performed by boiling tissue sections in pH 8 EDTA buffer prior to staining. Bax immunoreactivity is observed predominantly within the cytoplasm of malignant epithelial cells, consistent with the expected localization of BCL2 Associated X Protein, a pro-apoptotic member of the BCL2 family that regulates mitochondrial outer membrane permeabilization and activation of the intrinsic apoptotic pathway. Cell nuclei are counterstained with hematoxylin (blue).



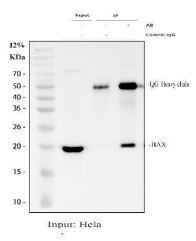
Bax Antibody A549 Cell IF. Immunofluorescent staining of A549 cells with Bax antibody (green) at 5 ug/ml. Enzymatic antigen retrieval was performed for 15 minutes prior to staining. Nuclei are counterstained with DAPI (blue). Bax immunoreactivity is observed predominantly within the cytoplasm, consistent with the expected localization of BCL2 Associated X Protein, a pro-apoptotic BCL2 family member that undergoes stress-induced translocation to the mitochondrial outer membrane to initiate the intrinsic apoptotic pathway.



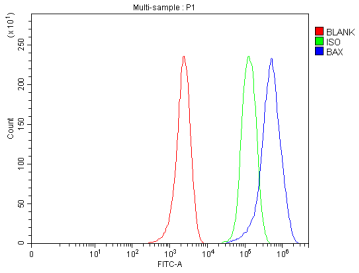
Bax Antibody Human, Rat and Mouse WB. Western blot testing of 1) human THP-1, 2) human MCF-7, 3) human A549, 4) human HeLa, 5) rat brain, 6) rat C6, 7) mouse brain, and 8) mouse Neuro-2a lysates with Bax antibody at 0.5 ug/ml. A distinct immunoreactive band is detected at approximately 21 kDa in all samples, consistent with the predicted molecular weight of Bax. The results demonstrate specific detection of BCL2 Associated X Protein, a pro-apoptotic BCL2 family member that regulates mitochondrial outer membrane permeabilization and activation of the intrinsic apoptotic pathway following cellular stress.



Bax Antibody HeLa Wild-Type and Knockout WB. Western blot testing of 1) human HeLa wild-type (WT) and 2) human HeLa Bax knockout (KO) cell lysates with Bax antibody at 0.5 ug/ml. A specific immunoreactive band is detected at approximately 21 kDa in the wild-type lysate but is absent from the Bax knockout lysate, confirming specific detection of BCL2 Associated X Protein. Beta-actin serves as the loading control. These results provide genetic validation of antibody specificity for western blot analysis.



Bax Antibody HeLa Cell IP. Immunoprecipitation of endogenous BCL2 Associated X Protein (Bax) from human HeLa whole cell lysate using Bax antibody. Lane 1: Input HeLa whole cell lysate (30 ug). Lane 2: Rabbit control IgG immunoprecipitation (negative control). Lane 3: Immunoprecipitation with 2 ug Bax antibody and 500 ug HeLa whole cell lysate. Immunoprecipitated proteins were analyzed by western blot using the same antibody. A specific band is detected at approximately 21 kDa, consistent with the predicted molecular weight of BCL2 Associated X Protein, demonstrating efficient and specific immunoprecipitation of this pro-apoptotic BCL2 family protein.



Bax Antibody MCF-7 Cell FACS. Flow cytometric analysis of fixed and permeabilized human MCF-7 cells stained with Bax antibody. Red: blank control. Green: rabbit IgG isotype control. Blue: Bax antibody. The pronounced rightward shift of the Bax antibody-stained population relative to the isotype control demonstrates specific intracellular detection of BCL2 Associated X Protein (Bax), a pro-apoptotic BCL2 family protein that regulates mitochondrial outer membrane permeabilization and activation of the intrinsic apoptotic pathway following cellular stress.

Description

Bax Antibody recognizes BCL2 Associated X Protein (Bax), a pro-apoptotic member of the BCL2 protein family that functions as a critical regulator of the intrinsic mitochondrial apoptosis pathway. Under normal physiological conditions, Bax is maintained in an inactive conformation within the cytoplasm. In response to DNA damage, oxidative stress, oncogene activation, endoplasmic reticulum stress, or growth factor withdrawal, Bax undergoes conformational activation and translocates to the mitochondrial outer membrane. There it oligomerizes to form membrane pores that initiate cytochrome c release, caspase activation, and programmed cell death. Consequently, Bax Antibody is widely used to investigate apoptosis, mitochondrial biology, cancer, and therapeutic responses.

BCL2 Associated X Protein acts in concert with other BCL2 family members to regulate cellular survival and death. Anti-apoptotic proteins including BCL2, BCL-XL, and MCL1 suppress Bax activation, whereas BH3-only proteins such as BID, BIM, PUMA, and NOXA promote its mitochondrial translocation. Together with BAK, Bax commits damaged or stressed cells to apoptosis by disrupting mitochondrial membrane integrity. Because this regulatory network controls tissue homeostasis and elimination of abnormal cells, Bax Antibody has become an essential reagent for studies of intrinsic apoptosis, chemotherapy sensitivity, radiation responses, developmental biology, and neurodegenerative disease.

Altered expression or activity of BCL2 Associated X Protein has been linked to numerous pathological conditions, including breast cancer, colorectal cancer, lung cancer, prostate cancer, hepatocellular carcinoma, leukemia, lymphoma, Alzheimer's disease, Parkinson's disease, myocardial infarction, stroke, and autoimmune disorders. Reduced Bax activity can permit malignant cells to evade apoptosis and develop therapeutic resistance, whereas excessive activation contributes to neuronal loss and ischemic tissue injury. These findings have established Bax as both an important biomarker and a promising therapeutic target, making Bax Antibody an indispensable tool for investigating programmed cell death and mitochondrial dysfunction.

NSJ Bioreagents offers highly validated Bax Antibody products for reliable detection of endogenous BCL2 Associated X Protein in human and animal samples. These antibodies support investigations into mitochondrial apoptosis, BCL2 family signaling, programmed cell death, cancer biology, neurodegeneration, and cellular stress responses while providing dependable performance across western blotting, immunohistochemistry, immunofluorescence, flow cytometry, immunoprecipitation, and related research applications.

Learn more about Bax biology and explore our highly published mouse monoclonal Bax antibody on our Bax Antibody page.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Bax Antibody / BCL2 Associated X Protein Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Amino acids 19-33 (IMKTGALLLQGFIQD) were used as the immunogen for this Bax antibody.

Storage

After reconstitution, the Bax antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

BCL2 Associated X Protein antibody, Bax antibody, BCL2 Like 4 antibody, BCL2L4 antibody, BAX Protein antibody, BCL2 Associated X antibody

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