abcam

ab139543

FITC Anti-Bax antibody [T22-A]

Anti-Bax antibody [T22-A] conjugated to FITC - suitable for flow cytometry, and reacts with human samples. Clone [T22-A] is a rabbit monoclonal antibody.

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Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	FITC
Excitation/Emission	Ex: 495nm, Em: 519nm
Storage buffer	Preservative: 0.05% Sodium azide Constituents: 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Synthetic Peptide within Human BAX. The exact immunogen used to generate this antibody is proprietary information. Database link Q07812
Clone number	T22-A
Purification technique	Proprietary technique
Concentration	0.2 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	This immunoglobulin is the product of one single B-cell line from the crude anti-peptide polyclonal anti-serum. This antibody is purified using a propriety technique and offers a completely post-translationally modified and properly glycosylated antibody. This offers increased stability.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	Use 1×10^6 cells per 100 µl

Target data

See full target information BAX

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).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Store in the dark

Notes

The antibody is conjugated with FITC under optimal conditions. The solution is free of unconjugated FITC and unconjugated antibody.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Bax also known as Bcl-2-associated X protein plays an important role in the regulation of apoptosis. It is widely known for its pro-apoptotic function opposing the action of anti-apoptotic proteins like Bcl-2. Bax has a molecular weight of approximately 21 kDa making it identifiable in laboratory techniques such as western blot. Researchers often use anti-Bax antibodies to detect and analyze its expression levels in various studies. The Bax protein is mainly expressed in mitochondria where it undergoes changes in response to apoptotic signals.
Biological function summary	The Bax protein forms homodimers or heterodimers with other Bcl-2 family proteins to facilitate apoptosis. This protein is part of a larger complex involving several members of the Bcl-2 family which finely tunes the balance between cell survival and programmed cell death. Through a change in its conformation Bax translocates to the outer mitochondrial membrane where it promotes the release of cytochrome c and other apoptogenic factors into the cytosol.
Pathways	Bax plays a significant role in the intrinsic pathway of apoptosis also known as the mitochondrial pathway. This pathway involves the release of cytochrome c which further activates downstream proteins such as caspase-9 and caspase-3. Bax interacts closely with proteins like Bak another pro-apoptotic member of the Bcl-2 family providing a cooperative function in mitochondrial membrane permeabilization. Together Bax and Bak act as gatekeepers of the mitochondrial pathway determining the cell's fate in response to apoptotic stimuli.
Associated diseases and disorders	The dysregulation of Bax often associates with various cancers and neurodegenerative diseases. In cancer reduced Bax expression or function can lead to resistance to apoptosis contributing to unchecked cellular proliferation. Conversely in neurodegenerative disorders such as Alzheimer's disease increased Bax activity results in excessive neuronal apoptosis. The balance between Bax and its partner proteins like Bcl-2 or Bcl-xL is important in maintaining normal cellular function and preventing disease progression.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

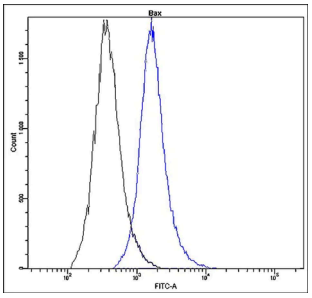
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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1 product image



Flow Cytometry - FITC Anti-Bax antibody [T22-A] (ab139543)

Bax Flow Cytometry staining using rabbit Anti-Bax antibody

Flow cytometry analysis of Human HEK293 cell line, staining Bax with ab139543. Cells were fixed, permeabilized and stained with FITC-conjugated ab139543 (blue, 10 µl per test) or with an isotype control (black).

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