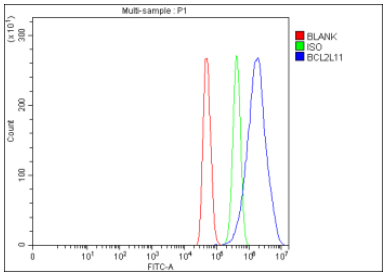
Bim Antibody / Bcl-2-like protein 11 (FY13189)

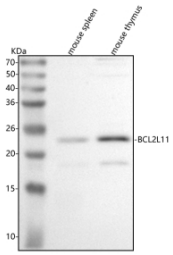
Catalog No.	Formulation	Size
FY13189	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Mouse
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	O54918
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This Bim antibody is available for research use only.



Flow Cytometry analysis of C2C12 cells using anti-Bim antibody. Overlay histogram showing C2C12 cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Bim antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



Western blot analysis of Bim/Bcl2l11 using anti-Bim antibody. Lane 1: mouse spleen tissue lysates, Lane 2: mouse thymus tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Bim antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. A specific band was detected for Bim/Bcl2l11 at approximately 22 kDa. The expected molecular weight of Bim/Bcl2l11 is at 22 kDa.

Description

Bim antibody detects Bcl-2-like protein 11, a pro-apoptotic member of the Bcl-2 family that promotes programmed cell death through mitochondrial outer membrane permeabilization. The UniProt recommended name is Bcl-2-like protein 11 (BCL2L11). Also known as Bim, this BH3-only protein is a critical initiator of apoptosis in response to cellular stress, cytokine withdrawal, or DNA damage.

Functionally, Bim antibody identifies a 198-amino-acid cytoplasmic protein that binds anti-apoptotic Bcl-2 proteins (such as BCL2, BCL-XL, and MCL1), releasing pro-apoptotic effectors BAX and BAK to trigger mitochondrial cytochrome c release and caspase activation. Bim exists in several isoforms (BimEL, BimL, and BimS) generated by alternative splicing, which modulate apoptosis sensitivity across cell types.

The BCL2L11 gene is located on chromosome 2q13 and is expressed in lymphoid, neuronal, and epithelial tissues. Its expression is tightly regulated by survival pathways including PI3K/AKT and MAPK signaling, which control phosphorylation and proteasomal degradation of Bim.

Pathologically, dysregulation of Bim contributes to cancer, autoimmune diseases, and neurodegeneration. Reduced Bim expression confers resistance to apoptosis in tumor cells, while overexpression causes excessive neuronal death. Research using Bim antibody supports studies in cell death signaling, oncology, and stress-induced apoptosis.

Bim antibody is validated for western blotting, immunohistochemistry, and apoptosis assays to detect Bcl-2 family proteins. NSJ Bioreagents provides Bim antibody reagents optimized for apoptosis research, mitochondrial biology, and cancer cell signaling.

Structurally, Bcl-2-like protein 11 contains a BH3 domain required for binding to anti-apoptotic Bcl-2 members and activating the intrinsic apoptotic pathway. This antibody supports exploration of Bim's role in stress-induced mitochondrial apoptosis and cellular homeostasis.

Application Notes

Optimal dilution of the Bim antibody should be determined by the researcher.

Immunogen

E.coli-derived mouse Bim/Bcl2l11 recombinant protein (Position: Q18-R186) was used as the immunogen for the Bim antibody.

Storage

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