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Bik Antibody

Catalog # ASC10426

Product Information

Application	WB, IF, ICC, E
Primary Accession	Q13323
Other Accession	CAG30276, 47678311
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	18016
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	BIK antibody can be used for the detection of BIK by Western blot at 1 - 2 g/mL. Antibody can also be used for immunocytochemistry starting at 1 g/mL. For immunofluorescence start at 10 g/mL.

Additional Information

Gene ID	638
Other Names	Bik Antibody: BP4, NBK, BIP1, Bcl-2-interacting killer, Apoptosis inducer NBK, BCL2-interacting killer (apoptosis-inducing)
Target/Specificity	BIK;
Reconstitution & Storage	Bik antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	Bik Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BIK {ECO:0000303|PubMed:7478623, ECO:0000312|HGNC:HGNC:1051}
Function	Accelerates programmed cell death. Association to the apoptosis repressors Bcl-X(L), BHRF1, Bcl-2 or its adenovirus homolog E1B 19k protein suppresses this death-promoting activity. Does not interact with BAX.
Cellular Location	Endomembrane system; Single-pass membrane protein. Mitochondrion membrane {ECO:0000250|UniProtKB:O70337}; Single-pass membrane protein. Note=Around the nuclear envelope, and in cytoplasmic membranes.

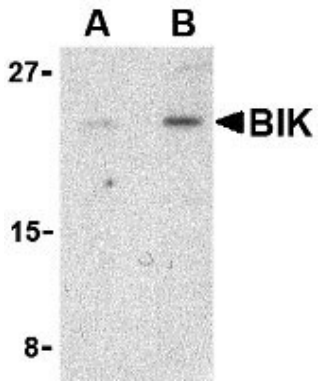
Background

Bik Antibody: Apoptosis plays a major role in normal organism development, tissue homeostasis, and removal of damaged cells and is caused by the activation of proteolytic enzymes termed caspases. Proteins that comprise the Bcl-2 family appear to control the activation of these enzymes. One such protein BIK was recently identified as an endoplasmic reticulum (ER)-residing pro-apoptotic member of the Bcl-2 homology domain-3 (BH3)-only group of the Bcl-2 family that stimulates mitochondrial release of cytochrome c following p53 induction of apoptosis. A significant fraction of BIK is found as an ER transmembrane protein, with most of the protein facing the cytosol. Restricting BIK to the ER membrane by replacing the transmembrane region with that of the ER-selective membrane anchor of cytochrome b resulted in a decreased cytochrome c release from mitochondria and a corresponding drop in cell death. Recent evidence suggests that BIK cooperates with NOXA, another BH3-only protein, to somehow enhance the activation of Bax to stimulate the rapid release of cytochrome c from mitochondria.

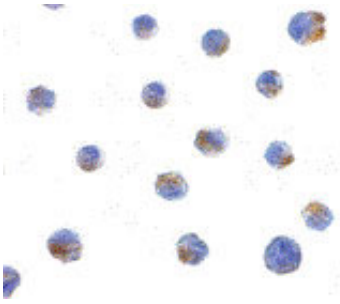
References

Lockshin RA, Osborne B, and Zakeri Z. Cell death in the third millennium. Cell Death Differ. 2000; 7:2-7.
Germain M, Mathai JP, and Shore GC. BH-3-only BIK functions at the endoplasmic reticulum to stimulate cytochrome c release from mitochondria. J. Biol. Chem. 277:18053-60.
Germain M, Mathai JP, McBride HM, et al. Endoplasmic reticulum BIK initiates DRP1-regulated remodelling of mitochondrial cristae during apoptosis. EMBO J. 2005; 24:1546-56.

Images

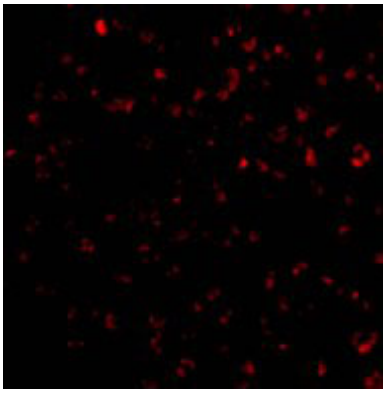


Western blot analysis of BIK in Jurkat cell lysate with BIK antibody at (A) 1 and (B) 2 µg/mL.



Immunocytochemistry of BIK in Jurkat cells with BIK antibody at 1 µg/mL.

Immunofluorescence of Bik in Jurkat cells with Bik antibody at 10 µg/mL.



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