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BOK Antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI14935

Product Information

Application	WB
Primary Accession	Q9UMX3
Reactivity	Human
Predicted	Human, Mouse, Rat, Zebrafish, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	23280

Additional Information

Gene ID	666
Alias Symbol	BOK, BCL2L9,
Other Names	Bcl-2-related ovarian killer protein, hBOK, Bcl-2-like protein 9, Bcl2-L-9, BOK, BCL2L9
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 &mu, l of distilled water. Final Anti-BOK antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at -20°C. Avoid repeat freeze-thaw cycles.
Precautions	BOK Antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BOK (HGNC:1087)
Synonyms	BCL2L9
Function	[Isoform 1]: Apoptosis regulator that functions through different apoptotic signaling pathways (PubMed:15102863, PubMed:20673843, PubMed:27076518). Plays a roles as pro-apoptotic protein that positively regulates intrinsic apoptotic process in a BAX- and BAK1-dependent manner or in a BAX- and BAK1-independent manner (PubMed:15102863, PubMed:27076518). In response to endoplasmic reticulum stress promotes mitochondrial apoptosis through downstream BAX/BAK1 activation and positive regulation of PERK-mediated unfolded protein response (By similarity). Activates apoptosis independently of heterodimerization with

survival-promoting BCL2 and BCL2L1 through induction of mitochondrial outer membrane permeabilization, in a BAX- and BAK1-independent manner, in response to inhibition of ERAD- proteasome degradation system, resulting in cytochrome c release (PubMed:27076518). In response to DNA damage, mediates intrinsic apoptotic process in a TP53-dependent manner (PubMed:15102863). Plays a role in granulosa cell apoptosis by CASP3 activation (PubMed:20673843). Plays a roles as anti-apoptotic protein during neuronal apoptotic process, by negatively regulating poly ADP-ribose polymerase-dependent cell death through regulation of neuronal calcium homeostasis and mitochondrial bioenergetics in response to NMDA excitation (By similarity). In addition to its role in apoptosis, may regulate trophoblast cell proliferation during the early stages of placental development, by acting on G1/S transition through regulation of CCNE1 expression (PubMed:19942931). May also play a role as an inducer of autophagy by disrupting interaction between MCL1 and BECN1 (PubMed:24113155).

Cellular Location

[Isoform 1]: Mitochondrion membrane {ECO:0000250|UniProtKB:O35425}; Single-pass membrane protein {ECO:0000250|UniProtKB:O35425}. Endoplasmic reticulum membrane; Single-pass membrane protein {ECO:0000250|UniProtKB:O35425}. Mitochondrion inner membrane. Cytoplasm. Nucleus. Mitochondrion. Endoplasmic reticulum. Mitochondrion outer membrane. Early endosome membrane {ECO:0000250|UniProtKB:O35425}. Recycling endosome membrane {ECO:0000250|UniProtKB:O35425}. Nucleus outer membrane {ECO:0000250|UniProtKB:O35425}. Golgi apparatus, cis-Golgi network membrane {ECO:0000250|UniProtKB:O35425}. Golgi apparatus, trans-Golgi network membrane {ECO:0000250|UniProtKB:O35425}. Membrane. Note=Nuclear and cytoplasmic compartments in the early stages of apoptosis and during apoptosis it associates with mitochondria (PubMed:19942931). In healthy cells, associates loosely with the membrane in a hit-and-run mode. The insertion and accumulation on membranes is enhanced through the activity of death signals, resulting in the integration of the membrane-bound protein into the membrane (PubMed:15868100). The transmembrane domain controls subcellular localization; constitutes a tail-anchor. Localizes in early and late endosome upon blocking of apoptosis. Must localize to the mitochondria to induce mitochondrial outer membrane permeabilization and apoptosis (By similarity) {ECO:0000250|UniProtKB:O35425, ECO:0000269|PubMed:15868100, ECO:0000269|PubMed:19942931}

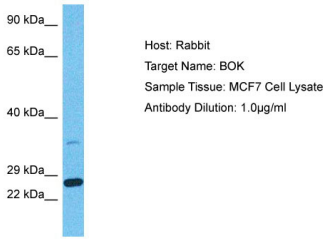
Tissue Location

Expressed mainly in oocytes; weak expression in granulosa cells of the developing follicles. In adult human ovaries, expressed in granulosa cells at all follicular stages, but expression in primordial/primary follicles granulosa cell is stronger than in secondary and antral follicles.

References

Zhang H.,et al.FEBS Lett. 480:311-313(2000).
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
Inohara N.,et al.J. Biol. Chem. 273:8705-8710(1998).
Mayya V.,et al.Sci. Signal. 2:RA46-RA46(2009).
Echeverry N.,et al.Cell Death Differ. 20:785-799(2013).

Images



Host: Rabbit
Target Name: BOK
Sample Tissue: MCF7 Whole Cell lysates
Antibody Dilution: 1.0µg/ml