

Anti-BOK antibody



Description Unconjugated Rabbit polyclonal to BOK

Model STJ190601

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, WB

Immunogen Synthesized peptide derived from human BOK protein.

Immunogen Region 10-90aa

Gene ID <u>666</u>

Gene Symbol BOK

Dilution range WB 1:500-2000 ELISA 1:5000-20000

Specificity BOK Polyclonal Antibody detects endogenous levels of protein.

Tissue Specificity 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.

Purification BOK antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Bcl-2-related ovarian killer protein hBOK Bcl-2-like protein 9 Bcl2-L-9

Molecular Weight 23 kDa

Clonality Polyclonal

Unconjugated Conjugation

IgG Isotype

Liquid form in PBS containing 50% glycerol, and 0.02% sodium azide. **Formulation**

Concentration 1 mg/ml

Store at -20°C, and avoid repeat freeze-thaw cycles. **Storage Instruction**

HGNC:1087OMIM:605404 **Database Links**

Bcl-2-related ovarian killer protein hBOK Bcl-2-like protein 9 Bcl2-L-9 **Alternative Names**

Function Isoform 1: Apoptosis regulator that functions through different apoptotic

> signaling pathways. 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. In response to endoplasmic reticulum stress promotes mitochondrial apoptosis through downstream BAX/BAK1 activation and positive regulation of PERK-mediated unfolded protein response. Activates apoptosis independently of heterodimerization with survival-promoting BCL2 and BCL2L1 through induction of mitochondrial outer membrane permeabilization, in a BAX- and BAK1independent manner, in response to inhibition of ERAD-proteasome degradation system, resulting in cytochrome c release. In response to DNA damage, mediates intrinsic apoptotic process in a TP53-dependent manner. Plays a role in granulosa cell apoptosis by CASP3 activation. Plays a roles as

anti-apoptotic protein during neuronal apototic 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. 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. May also play a role as an inducer of autophagy by disrupting interaction between MCL1 and BECN1 . Isoform 2: Pro-apoptotic molecule

exerting its function through the mitochondrial pathway.

Sequence and Domain Family BH4 domain mediates interaction with ITPR1.

Cellular Localization Isoform 1: Mitochondrion membrane Endoplasmic reticulum membrane

> Mitochondrion inner membrane Cytoplasm Nucleus Mitochondrion Endoplasmic reticulum Mitochondrion outer membrane Early endosome membrane Recycling endosome membrane Nucleus outer membrane Golgi apparatus, cis-Golgi network membrane Golgi apparatus, trans-Golgi network membrane Membrane. Nuclear and cytoplasmic compartments in the early stages of apoptosis and during apoptosis it associates with mitochondria. 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. 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. Isoform 2:

Membrane Cytoplasm

Ubiquitinated by AMFR/gp78 E3 ubiquitin ligase complex; mediates

Post-translational

Modifications

degradation by ubiquitin-proteasome pathway in a VCP/p97-dependent manner; prevents from pro-apoptotic activity; promotes degradation of newly synthesized proteins that are not ITPR1 associated.

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