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	666
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
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid form in PBS containing 50% glycerol,and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:1087OMIM:605404
Alternative Names	Bcl-2-related ovarian killer protein hBOK Bcl-2-like protein 9 Bcl2-L-9
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 BAK1-independent 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
Post-translational	Ubiquitinated by AMFR/gp78 E3 ubiquitin ligase complex; mediates

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.