

## **BOK Antibody (internal region)**

Peptide-affinity purified goat antibody Catalog # AF3333a

### **Specification**

## **BOK Antibody (internal region) - Product Information**

Application

Primary Accession <u>Q9UMX3</u>

Other Accession <u>NP\_115904.1</u>, <u>666</u>, <u>51800 (mouse)</u>

Predicted Human, Mouse

Host Goat Clonality Polyclonal Concentration 0.5 mg/ml

Isotype IgG
Calculated MW 23280

# **BOK Antibody (internal region) - Additional Information**

#### Gene ID 666

### **Other Names**

Bcl-2-related ovarian killer protein, hBOK, Bcl-2-like protein 9, Bcl2-L-9, BOK, BCL2L9

## **Dilution**

E~~N/A

#### **Format**

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

#### **Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### **Precautions**

BOK Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

# **BOK Antibody (internal region) - Protein Information**

Name BOK (HGNC:1087)

**Synonyms** BCL2L9

# **Function**

[Isoform 1]: Apoptosis regulator that functions through different apoptotic signaling pathways (PubMed:<a href="http://www.uniprot.org/citations/15102863" target="\_blank">15102863</a>, PubMed:<a href="http://www.uniprot.org/citations/20673843" target=" blank">20673843</a>,



PubMed:<a href="http://www.uniprot.org/citations/27076518" target="\_blank">27076518</a>). 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:<a href="http://www.uniprot.org/citations/15102863" target="\_blank">15102863</a>, PubMed:<a href="http://www.uniprot.org/citations/27076518" target="\_blank">27076518</a>). 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:<a href="http://www.uniprot.org/citations/27076518" target="\_blank">27076518</a>). In response to DNA damage, mediates intrinsic apoptotic process in a TP53-dependent manner (PubMed:<a

 $href="http://www.uniprot.org/citations/15102863" target="_blank">15102863</a>). Plays a role in granulosa cell apoptosis by CASP3 activation (PubMed:<a$ 

href="http://www.uniprot.org/citations/20673843" target="\_blank">20673843</a>). 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:<a href="http://www.uniprot.org/citations/19942931" target="\_blank">19942931</a>). May also play a role as an inducer of autophagy by disrupting interaction between MCL1 and BECN1 (PubMed:<a href="http://www.uniprot.org/citations/24113155" target="\_blank">24113155</a>).

#### **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.

### **BOK Antibody (internal region) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides



Tel: 858.875.1900 Fax: 858.875.1999



- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# **BOK Antibody (internal region) - Images**

## **BOK Antibody (internal region) - References**

Voxelwise genome-wide association study (vGWAS). Stein JL, Hua X, Lee S, Ho AJ, Leow AD, Toga AW, Saykin AJ, Shen L, Foroud T, Pankratz N, Huentelman MJ, Craig DW, Gerber JD, Allen AN, Corneveaux JJ, Dechairo BM, Potkin SG, Weiner MW, M Thompson P, NeuroImage 2010 Feb: . PMID: 20171287