

Bok BH3 Domain Peptide
Synthetic Peptide
Catalog # SP1015a**Specification**

Bok BH3 Domain Peptide - Product Information

Primary Accession	O35425
Other Accession	Q792S6
Sequence	LAEVCTVLLRLGDELEQIRPS

Bok BH3 Domain Peptide - Additional Information**Gene ID** 51800**Other Names**

Bcl-2-related ovarian killer protein, Apoptosis activator Mtd, Protein matador, Bok, Mtd

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Bok BH3 Domain Peptide - Protein Information**Name** Bok {ECO:0000312|MGI:MGI:1858494}**Function**

Apoptosis regulator that functions through different apoptotic signaling pathways (PubMed:23429263, PubMed:26015568, PubMed:26949185, PubMed:27098698, PubMed:9535847). 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:23429263, PubMed:26015568, PubMed:26949185). In response to endoplasmic reticulum stress promotes mitochondrial apoptosis through downstream BAX/BAK1 activation and positive regulation of PERK-mediated unfolded protein response (PubMed:26015568). 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:9535847, PubMed:26949185). In response to DNA damage, mediates intrinsic apoptotic process in a TP53-dependent manner. Plays a role in granulosa cell apoptosis by CASP3 activation (By similarity). 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 (PubMed:27098698). 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 (By similarity).

Cellular Location

Mitochondrion membrane; Single-pass membrane protein. Endoplasmic reticulum membrane; Single-pass membrane protein Mitochondrion inner membrane {ECO:0000250|UniProtKB:Q9UMX3}. Cytoplasm {ECO:0000250|UniProtKB:Q9UMX3}. Nucleus {ECO:0000250|UniProtKB:Q9UMX3} Mitochondrion {ECO:0000250|UniProtKB:Q9UMX3}. Endoplasmic reticulum {ECO:0000250|UniProtKB:Q9UMX3}. Mitochondrion outer membrane {ECO:0000250|UniProtKB:Q9UMX3}. Early endosome membrane. Recycling endosome membrane. Nucleus outer membrane. Golgi apparatus, cis-Golgi network membrane. Golgi apparatus, trans-Golgi network membrane. Membrane {ECO:0000250|UniProtKB:Q9UMX3}. Note=Nuclear and cytoplasmic compartments in the early stages of apoptosis and during apoptosis 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 (By similarity). The transmembrane domain controls subcellular localization; constitutes a tail-anchor (PubMed:23429263, PubMed:26949185). Localizes in early and late endosome upon blocking of apoptosis (PubMed:23429263). Must localize to the mitochondria to induce mitochondrial outer membrane permeabilization and apoptosis (PubMed:26949185). {ECO:0000250|UniProtKB:Q9UMX3, ECO:0000269|PubMed:23429263, ECO:0000269|PubMed:26949185}

Tissue Location

Widely expressed (PubMed:9535847, PubMed:23429263). Highly expressed in brain, kidney, and spleen (PubMed:27098698)

Bok BH3 Domain Peptide - Images