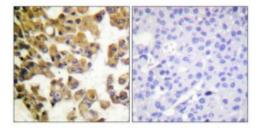


Anti-Bad antibody





Description Bad is a protein encoded by the BAD gene which is approximately 18,4

kDa. Bad is localised to the mitochondrion outer membrane and cytoplasm. It is involved in RET signalling, common cytokine receptor gamma-chain family signalling pathways, glioma and the development HGF signalling pathway. It positively regulates cell apoptosis by forming heterodimers with BCL-xL and BCL-2, and reversing their death repressor activity. It also appears to act as a link between growth factor receptor signalling and the apoptotic pathways. Bad is widely expressed in a wide variety of tissues. Mutations in the BAD gene may result in adrenal cortical adenocarcinoma and endometrial cancer. STJ91797 was affinity-purified from rabbit antiserum by affinity-chromatography using epitopespecific immunogen. This polyclonal antibody detects endogenous levels of Bad protein.

Model STJ91797

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, IHC

Immunogen Synthesized peptide derived from human Bad around the non-phosphorylation

site of S91.

Immunogen Region 30-110 aa

Gene ID <u>572</u>

Gene Symbol BAD

Dilution range IHC 1:100-1:300ELISA 1:10000

Specificity Bad Polyclonal Antibody detects endogenous levels of Bad protein.

Tissue Specificity Expressed in a wide variety of tissues.

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

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Bcl2-associated agonist of cell death BAD Bcl-2-binding component 6 Bcl-2-

like protein 8 Bcl2-L-8 Bcl-xL/Bcl-2-associated death promoter Bcl2

antagonist of cell death

Molecular Weight 24 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Concentration 1 mg/ml

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

Database Links <u>HGNC:936OMIM:603167</u>

Alternative Names Bcl2-associated agonist of cell death BAD Bcl-2-binding component 6 Bcl-2-

like protein 8 Bcl2-L-8 Bcl-xL/Bcl-2-associated death promoter Bcl2

antagonist of cell death

Function Promotes cell death. Successfully competes for the binding to Bcl-X(L), Bcl-2

and Bcl-W, thereby affecting the level of heterodimerization of these proteins with BAX. Can reverse the death repressor activity of Bcl-X(L), but not that of Bcl-2 . Appears to act as a link between growth factor receptor signaling

and the apoptotic pathways.

Sequence and Domain Family Intact BH3 motif is required by BIK, BID, BAK, BAD and BAX for their pro-

apoptotic activity and for their interaction with anti-apoptotic members of the

Bcl-2 family.

Cellular Localization Mitochondrion outer membrane. Cytoplasm. Colocalizes with HIF3A in the

cytoplasm . Upon phosphorylation, locates to the cytoplasm.

Post-translational Phosphorylated on one or more of Ser-75, Ser-99, Ser-118 and Ser-134 in

Modifications response to survival stimuli, which blocks its pro-apoptotic activity.

Phosphorylation on Ser-99 or Ser-75 promotes heterodimerization with 14-3-3 proteins. This interaction then facilitates the phosphorylation at Ser-118, a site within the BH3 motif, leading to the release of Bcl-X(L) and the promotion of cell survival. Ser-99 is the major site of AKT/PKB phosphorylation, Ser-118 the major site of protein kinase A (CAPK) phosphorylation. Phosphorylation at Ser-99 by PKB/AKT1 is almost completely blocked by the apoptotic C-terminus cleavage product of PKN2 generated by caspases-3 activity during apoptosis. Methylation at Arg-94 and Arg-96 by PRMT1 inhibits Akt-

mediated phosphorylation at Ser-99.