ARG20526
anti-Bad phospho (Ser112) antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Bad phospho (Ser112)
Tested Reactivity	Hu, Ms, Rat
Tested Application	ELISA, WB
Specificity	This antibody was affinity purified using phospho-Bad (Ser-112) peptide (without carrier). The antibody detects a ~23 kDa doublet corresponding to the apparent molecular mass of phosphorylated Bad on SDS-PAGE immunoblots of mouse J774A.1 treated with calyculin A. This reactivity is not observed after lambda phosphatase treatment.
Host	Rabbit
Clonality	Polyclonal
Target Name	Bad
Species	Mouse
Immunogen	KLH-conjugated phosphospecific peptide around Ser112 of Mouse Bad protein. This peptide sequence is highly conserved in human (Ser75) and rat (Ser113) Bad.
Conjugation	Un-conjugated
Alternate Names	Bcl-2-binding component 6; Bcl-2-like protein 8; BCL2L8; Bcl-xL/Bcl-2-associated death promoter; BAD; Bcl2-associated agonist of cell death; BBC2; Bcl2 antagonist of cell death; Bcl2-L-8

Application Instructions

Application table

Application	Dilution
ELISA	1:1000
WB	1:500

Application Note: WB: Antibody is suggested to be diluted in 5% skimmed milk/Tris buffer with 0.04% Tween20 and incubated for 1 hour at room temperature.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

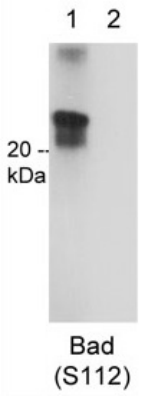
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS and 0.09% Sodium azide
Preservative	0.09% Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	Bad
Gene Full Name	BCL2-associated agonist of cell death
Background	Bad is a member of the BCL-2 family of regulators involved in programmed cell death. This protein positively regulates cell apoptosis by forming heterodimers with BCL-xL and BCL-2, and reversing their death repressor activity. Proapoptotic activity of this protein is regulated through its phosphorylation. Protein kinases AKT IKK, and MAP kinases, as well as protein phosphatase calcineurin are found to be involved in the regulation of this Bad activity. Phosphorylation of Bad occurs on one or more of Ser-26, Ser-112, Ser-136, and Ser-155 in response to survival stimuli, which blocks its pro-apoptotic activity. Phosphorylation on Ser-136 or Ser-112 promotes heterodimerization with 14-3-3 proteins. This interaction then facilitates the phosphorylation at Ser-155, a site within the BH3 motif, leading to the release of Bcl-xL and the promotion of cell survival. Ser-26 is phosphorylated by IKK leading to phosphorylation of C-terminal serine sites and disruption of binding to Bcl-xL. This inactivation of Bad inhibits TNFα-induced apoptosis independent of NF-κB activity.
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. [UniProt]
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Cell Death antibody; Metabolism antibody
Calculated Mw	18 kDa
PTM	Phosphorylated on one or more of Ser-75, Ser-99, Ser-118 and Ser-134 in 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.

Images



ARG20526 anti-Bad phospho (Ser112) antibody WB image

Western blot: 1) and 2) calyculin A treated Mouse J774A.1 macrophage, 2) then the blots were treated with lambda phosphatase. The blots were stained with ARG20526 anti-Bad phospho (Ser112) antibody.