

Bad polyclonal antibody

Bad is an important regulatory protein involved in the control of cell survival and apoptosis, and is a member of the BH3-only family of proteins such as Bim and Bid that share homology with Bcl-2 only in the BH3 domain. Phosphorylated Bad is sequestered in the cytosol by 14-3-3 proteins under normal conditions, but is dephosphorylated and activated following apoptotic signals. Apoptotic stimuli induce Bad dephosphorylation by a number of phosphatases (e.g., calcineurin) and recruitment to the mitochondria, where Bad heterodimerizes with and inhibits prosurvival proteins of the Bcl family. In contrast, survival signals lead to phosphorylation of Bad at multiple serine residues, including phosphorylation at Ser112 and Ser136 which induce association with 14-3-3 proteins. Phosphorylation at Ser112 and Ser136 is required for a third phosphorylation event at Ser155, which induces dissociation of Bad/Bcl heterodimers to promote cell survival. This antibody specifically binds the Bad protein, but does not recognize Bad/Bcl-2 heterodimers in immunoprecipitation assays.

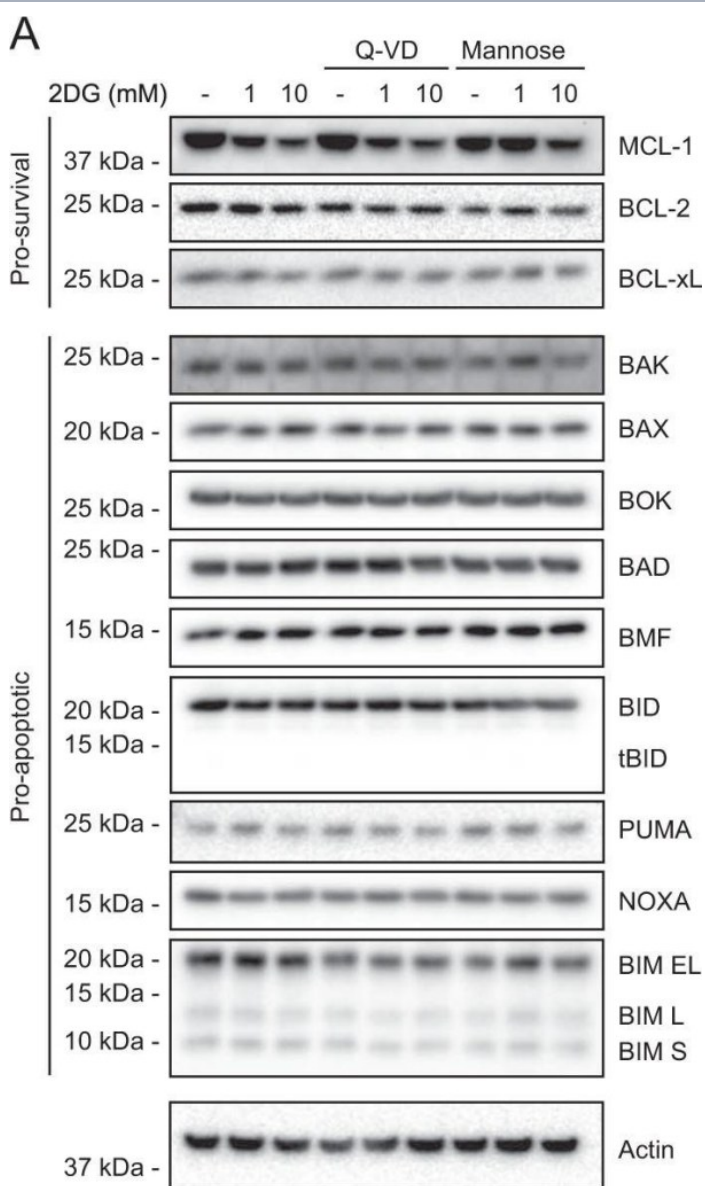
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Selective impact of 2DG on the BCL-2 protein family. a Abundance of pro-survival and pro-apoptotic proteins of the family, assessed by western blotting, in NALM-6 cells after 6 h of 2DG treatment (1 or 10 mM), showing that only MCL-1 is affected and that mannose (10 mM), but not caspase inhibition (50 μ M Q-VD), partially relieves the MCL-1 drop. bMCL-1 mRNA abundance assessed by quantitative RT-PCR in NALM-6 cells treated for 6 h with 2DG (1 or 10 mM) and co-treated as indicated with Q-VD (50 μ M) or mannose (10 mM). TRIzol purified mRNA was subjected to random primer RT-PCR, and MCL-1 mRNA level determined by quantitative PCR, normalized by a geometrical mean of four housekeeping mRNAs (GAPDH, TUB β 1, PPIA, and TBP, see Methods). Data are plotted as mean \pm SD. Significance was determined by two-way ANOVA: ****P 0.05)

Image collected and cropped by CiteAb under a CC-BY license from the following publication: By reducing global mRNA translation in several ways, 2-deoxyglucose lowers MCL-1 protein and sensitizes hemopoietic tumor cells to BH3 mimetic ABT737. *Cell Death Differ* (2019)

Handling & Storage

Handling Avoid freeze/thaw cycles.

Long Term Storage -20°C

Shipping Blue Ice

Regulatory Status RUO - Research Use Only

Product Details

Alternative Name BCL2 antagonist of cell death

Application IHC, WB

Application Notes Detects a band of ~23kDa by Western blot.

Crossreactivity Weakly cross-reacts with dog and chicken Bad.

Formulation Liquid. In PBS, pH 7.2, containing 50% glycerol and 0.09% sodium azide.

Host Rabbit

Immunogen Synthetic peptide corresponding to a portion of mouse Bad.

Purity Detail Protein A affinity purified.

Recommendation Dilutions/Conditions Immunohistochemistry (1:50)Western Blot (1:1,000, ECL)Suggested dilutions/conditions may not be available for all applications.Optimal conditions must be determined individually for each application.

Source Purified from rabbit serum.

Species Reactivity Bovine, Drosophila, Hamster, Monkey, Mouse, Porcine, Rabbit, Rat, Sheep

UniProt ID Q61337

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Last modified: May 29, 2024



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