

Store at -20°C  
#4366

## Phospho-Bad (Ser136) (D25H8) Rabbit mAb



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**For Research Use Only. Not for Use in Diagnostic Procedures.**

| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---------------|-------------|--------------|-----------|-----------------|-------------|-----------------|
| WB, IP        | H M Mk      | Endogenous   | 23        | Rabbit IgG      | #Q92934     | 572             |

|  |   |                                    |
|--|---|------------------------------------|
| <b>Product Usage Information</b>                                   | <b>Application</b><br>Western Blotting<br>Immunoprecipitation   | <b>Dilution</b><br>1:1000<br>1:100 |
| <b>Storage</b>   | Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.  |                                    |
| <b>Specificity / Sensitivity</b>                                   | Phospho-Bad (Ser136) (D25H8) Rabbit mAb detects endogenous levels of Bad only when phosphorylated at Ser136 (equivalent to Ser99 in human and Ser137 in rat).   |                                    |
| <b>Species predicted to react based on 100% sequence homology:</b> | Rat   |                                    |
| <b>Source / Purification</b>                                       | Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser136 of mouse Bad protein.  |                                    |
| <b>Background</b>  | Bad is a proapoptotic member of the Bcl-2 family that promotes cell death by displacing Bax from binding to Bcl-2 and Bcl-xL (1,2). Survival factors, such as IL-3, inhibit the apoptotic activity of Bad by activating intracellular signaling pathways that result in the phosphorylation of Bad at Ser112 and Ser136 (2). Phosphorylation at these sites promotes binding of Bad to 14-3-3 proteins to prevent an association between Bad with Bcl-2 and Bcl-xL (2). Akt phosphorylates Bad at Ser136 to promote cell survival (3,4). Bad is phosphorylated at Ser112 both <i>in vivo</i> and <i>in vitro</i> by p90RSK (5,6) and mitochondria-anchored PKA (7). Phosphorylation at Ser155 in the BH3 domain by PKA plays a critical role in blocking the dimerization of Bad and Bcl-xL (8-10). |                                    |
| <b>Background References</b>                                       | 1. Yang, E. et al. (1995) <i>Cell</i> 80, 285-291.<br>2. Zha, J. et al. (1996) <i>Cell</i> 87, 619-628.<br>3. Datta, S.R. et al. (1997) <i>Cell</i> 91, 231-241.<br>4. Peso, L. et al. (1997) <i>Science</i> 278, 687-689.<br>5. Bonni, A. et al. (1999) <i>Science</i> 286, 1358-1362.<br>6. Tan, Y. et al. (1999) <i>J. Biol. Chem.</i> 274, 34859-34867.<br>7. Harada, H. et al. (1999) <i>Mol. Cell</i> 3, 413-422.<br>8. Tan, Y. et al. (2000) <i>J. Biol. Chem.</i> 275, 25865-25869.<br>9. Lizcano, J. et al. (2000) <i>Biochem. J.</i> 349, 547-557.<br>10. Datta, S. et al. (2000) <i>Mol. Cell</i> 6, 41-51.  |                                    |

|                             |  |
|-----------------------------|--|
| <b>Species Reactivity</b>   | Species reactivity is determined by testing in at least one approved application (e.g., western blot).   |
| <b>Western Blot Buffer</b>  | IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.   |
| <b>Applications Key</b>     | <b>WB:</b> Western Blotting <b>IP:</b> Immunoprecipitation   |
| <b>Cross-Reactivity Key</b> | <b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster<br><b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse<br><b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected |

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