

Store at -20C  
#8223

## PhosphoPlus® Bad (Ser112) Antibody Duet



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

UniProt ID:  
#Q92934

Entrez-Gene Id:  
572

Product Includes	Product #	Quantity	Mol. Wt.	Isotype/Source
Phospho-Bad (Ser112) (40A9) Rabbit mAb	5284	100 µl	23 kDa	Rabbit IgG
Bad (D24A9) Rabbit mAb	9239	100 µl	23 kDa	Rabbit IgG

Please visit [cellsignal.com](http://cellsignal.com) for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

### Description

PhosphoPlus® Duets from Cell Signaling Technology (CST) provide a means to assess protein activation status. Each Duet contains an activation-state and total protein antibody to your target of interest. These antibodies have been selected from CST's product offering based upon superior performance in specified applications.

### Storage

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.*

### Background

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 *in vivo* and *in vitro* 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).

### Background References

1. Yang, E. et al. (1995) *Cell* 80, 285-291.
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3. Datta, S.R. et al. (1997) *Cell* 91, 231-241.
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5. Bonni, A. et al. (1999) *Science* 286, 1358-1362.
6. Tan, Y. et al. (1999) *J. Biol. Chem.* 274, 34859-34867.
7. Harada, H. et al. (1999) *Mol. Cell* 3, 413-422.
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9. Lizcano, J. et al. (2000) *Biochem. J.* 349, 547-557.
10. Datta, S. et al. (2000) *Mol. Cell* 6, 41-51.

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