

PhosphoPlus<sup>®</sup> YAP (Ser109) Antibody Duet

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

**UniProt ID:** #P46937  
**Entrez-Gene Id:** 10413

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
YAP (D8H1X) XP <sup>®</sup> Rabbit mAb	14074	100 µl	65-78 kDa	Rabbit IgG
Phospho-YAP (Ser109) (E5I9G) Rabbit mAb	53749	100 µl	65-78 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<sup>®</sup> 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

YAP (Yes-associated protein, YAP65) was first identified based on its ability to associate with the SH3 domain of Yes. It also binds to other SH3 domain-containing proteins such as Nck, Crk, Src, and Abl (1). In addition to the SH3 binding motif, YAP contains a PDZ interaction motif, a coiled-coil domain, and WW domains (2-4). While initial studies of YAP all pointed towards a role in anchoring and targeting to specific subcellular compartments, subsequent studies showed that YAP is a transcriptional co-activator by virtue of its WW domain interacting with the PY motif (PPxY) of the transcription factor PEBP2 and other transcription factors (5). In its capacity as a transcriptional co-activator, YAP is now widely recognized as a central mediator of the Hippo Pathway, which plays a fundamental and widely conserved role in regulating tissue growth and organ size (6-8). Phosphorylation at multiple sites (e.g., Ser109, Ser127) by LATS kinases promotes YAP translocation from the nucleus to the cytoplasm, where it is sequestered through association with 14-3-3 proteins (7-9). These LATS-driven phosphorylation events serve to prime YAP for subsequent phosphorylation by CK1δ/ε in an adjacent phosphodegron, triggering proteasomal degradation of YAP (10).

### Background References

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4. Sudol, M. et al. (1995) *FEBS Lett* 369, 67-71.
5. Yagi, R. et al. (1999) *EMBO J* 18, 2551-62.
6. Dong, J. et al. (2007) *Cell* 130, 1120-33.
7. Zhao, B. et al. (2010) *Genes Dev* 24, 862-74.
8. Zhao, B. et al. (2007) *Genes Dev* 21, 2747-61.
9. Yu, F.X. et al. (2012) *Cell* 150, 780-91.
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