

#13619 Store at -20°C

Phospho-YAP (Ser397) (D1E7Y) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R	Endogenous	65-78	Rabbit IgG	#P46937	10413

Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 1:100
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.	
Specificity / Sensitivity	Phospho-YAP (Ser397) Rabbit mAb recognizes endogenous levels of YAP protein only when phosphorylated at Ser397. This residue corresponds to Ser381 of YAP isoform 2, as reported by Zhao, B. et al. (2010) <i>Genes Dev</i> 24, 72-85 (9).	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues surrounding Ser397 of human YAP protein isoform 1.	
Background	<p>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).</p> <p>Phosphorylation of YAP at Ser397 (annotated as Ser381 by Zhao et al. 2010) primes YAP for subsequent phosphorylation by CK1δ/ε in an adjacent phosphodegron (9). Upon phosphorylation, the phosphodegron recruits the β-TrCP (SCF) ubiquitin ligase complex, which ubiquitinates YAP to trigger its proteolytic degradation in the proteasome.</p>	
Background References	<ol style="list-style-type: none"> 1. Sudol, M. (1994) <i>Oncogene</i> 9, 2145-52. 2. Mohler, P.J. et al. (1999) <i>J Cell Biol</i> 147, 879-90. 3. Espanel, X. and Sudol, M. (2001) <i>J Biol Chem</i> 276, 14514-23. 4. Sudol, M. et al. (1995) <i>FEBS Lett</i> 369, 67-71. 5. Yagi, R. et al. (1999) <i>EMBO J</i> 18, 2551-62. 6. Dong, J. et al. (2007) <i>Cell</i> 130, 1120-33. 7. Zhao, B. et al. (2010) <i>Genes Dev</i> 24, 862-74. 8. Zhao, B. et al. (2007) <i>Genes Dev</i> 21, 2747-61. 9. Yu, F.X. et al. (2012) <i>Cell</i> 150, 780-91. 10. Zhao, B. et al. (2010) <i>Genes Dev</i> 24, 72-85. 11. Zhao, B. et al. (2010) <i>Genes Dev</i> 24, 72-85. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	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.
Applications Key	WB: Western Blotting IP: Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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