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Product Information

Anti-phospho-YAP1 (pTyr^{357})
produced in rabbit, affinity isolated antibody

Catalog Number **Y4645**

Anti-phospho-YAP1 (pTyr^{357}) is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 351-362 (pTyr^{357}) located in the C-terminal region of human YAP1 (GeneID: 10413), conjugated to KLH. The sequence is identical in chicken YAP1 and highly conserved in mouse YAP1 (single amino acid substitution). The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-phospho-YAP1 (pTyr^{357}) specifically recognizes human phospho-YAP1 (pTyr^{357}) by immunoblotting (~65 kDa) and immunofluorescence. Staining of the phospho-YAP1 (pTyr^{357}) band in immunoblotting is specifically inhibited by the immunizing peptide. No inhibition with the unmodified peptide is observed.

YAP1 (Yes-associated protein 1, 65 kDa, YAP, YAP2, YAP65) is a modular adapter protein with multiple protein interaction domains that was originally identified based on its interaction with Src-family tyrosine kinase c-Yes.[1] YAP1 plays an important role as a transcription co-activator in regulating gene expression through direct association with a wide range of transcription factors, including Runx2 and PPARγ.[2] In addition to a SH3-binding motif, YAP1 contains a proline-rich amino terminus, a WW domain, a coiled-coil and a PDZ-binding motif at the extreme C-terminus. YAP1 binds to p73 through its WW domain and the PPPY motif of p73. This interaction is required for the ability of YAP1 to co-activate p73-responsive genes.[3] YAP1 has been recently reported to be phosphorylated by c-Abl tyrosine kinase at Tyr^{357}.[4] In response to DNA damage YAP1 translocates to the nucleus in a p73-dependent manner. In the nucleus, it promotes p73-dependent apoptosis through the specific and selective co-activation of p53AIP1, an apoptotic p73 target gene.[2] YAP1 has been shown to stabilize p73 by preventing Itch-mediated ubiquitination of p73.[5]

YAP1 also contains a 14-3-3 interacting motif. Upon phosphorylation by Akt at Ser^{127}, 14-3-3 is recruited and promotes YAP1 localization to the cytoplasm, resulting in loss of co-activator function in the nucleus.[6] Inhibition of Akt potentiates the nuclear re-localization of YAP1 to induce apoptosis by p73.[7]

Reagent
Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1.5 mg/mL

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile
Immunoblotting: a working concentration of 0.5-1 µg/mL is recommended using HEK-293T cells co-transfected with human YAP1 and human c-Abl.

Indirect immunofluorescence: a working concentration of 5-10 µg/mL is recommended using using HEK-293T cells co-transfected with human YAP1 and c-Abl.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References
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4. Levy, D., et al., *Mol.Cell,* **29,** 350-361 (2008).
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6. Basu, S., et al., *Mol. Cell*, **11**, 11-23 (2003).
7. Strano, S., et al., *Mol. Cell*, **18**, 447-459 (2005).

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