Revision 4

Store at +4C

#14729

# YAP (D8H1X) XP® Rabbit mAb (Alexa Fluor® 488 Conjugate)

Cell Signaling TECHNOLOGY®

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

| Applications: | Reactivity: | Sensitivity: | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---|---|---|---|---|---|
| IF-IC, FC-FP | H M R Hm Mk | Endogenous | Rabbit IgG | #P46937 | 10413 |

## Product Usage Information

| Application | Dilution |
|---|---|
| Immunofluorescence (Immunocytochemistry) | 1:200 - 1:800 |
| Flow Cytometry (Fixed/Permeabilized) | 1:50 |

## Storage

Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

## Specificity/Sensitivity

YAP (D8H1X) XP® Rabbit mAb (Alexa Fluor® 488 Conjugate) recognizes endogenous levels of total YAP protein.

## Species predicted to react based on 100% sequence homology

Bovine, Horse, Guinea Pig

## Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the carboxy terminus of human YAP protein. The epitope corresponds to a region surrounding Pro435 of human YAP isoform 1. This sequence region is 100% conserved among all known isoforms of human YAP protein.

## Description

This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-house for direct flow cytometric analysis in human cells. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated YAP (D8H1X) XP® Rabbit mAb #14074.

## 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

1. Sudol, M. (1994) *Oncogene* 9, 2145-52.
2. Mohler, P.J. et al. (1999) *J Cell Biol* 147, 879-90.
3. Espanel, X. and Sudol, M. (2001) *J Biol Chem* 276, 14514-23.
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.
10. Zhao, B. et al. (2010) *Genes Dev* 24, 72-85.

## Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

## Applications Key

**IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

## Cross-Reactivity Key

**H:** Human **M:** Mouse **R:** Rat **Hm:** Hamster **Mk:** Monkey

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