

# YAP (63.7): sc-101199

## BACKGROUND

The Yes-associated protein, otherwise known as YAP, is a 14-3-3 binding molecule that was originally recognized by virtue of its ability to bind to the SH3 domain of Yes. The binding of YAP to 14-3-3 requires the phosphorylation of a homologous serine residue (Ser 112) in the YAP 14-3-3 binding motif. The highly conserved and ubiquitously expressed 14-3-3 proteins regulate differentiation, cell cycle progression and apoptosis by binding intracellular phosphoproteins involved in signal transduction. YAP may link events at the plasma membrane and cytoskeleton to inhibition of transcription in the nucleus in a manner regulated by 14-3-3 proteins. YAP shares homology with the WW domain of TAZ, transcriptional co-activator with PDZ binding motif, which functions as a transcriptional co-activator by binding to the PPXY motif present in transcription factors. YAP is expressed at high levels in the lung, placenta, prostate, ovary and testis.

## CHROMOSOMAL LOCATION

Genetic locus: YAP1 (human) mapping to 11q13.1; Yap1 (mouse) mapping to 9 A1.

## SOURCE

YAP (63.7) is a mouse monoclonal antibody raised against recombinant YAP of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

YAP (63.7) is recommended for detection of YAP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for YAP siRNA (h): sc-38637, YAP siRNA (m): sc-38638, YAP shRNA Plasmid (h): sc-38637-SH, YAP shRNA Plasmid (m): sc-38638-SH, YAP shRNA (h) Lentiviral Particles: sc-38637-V and YAP shRNA (m) Lentiviral Particles: sc-38638-V.

Molecular Weight of YAP: 65 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, PC-3 cell lysate: sc-2220 or YAP (h): 293T Lysate: sc-115429.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

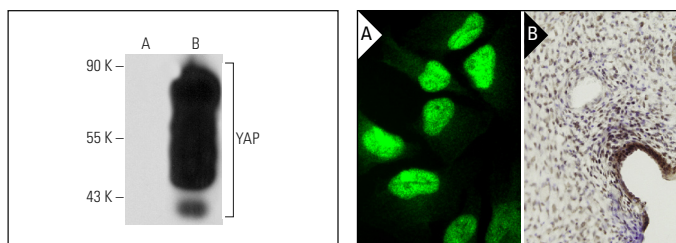
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## DATA



YAP (63.7): sc-101199. Western blot analysis of YAP expression in non-transfected: sc-117752 (A) and human YAP transfected: sc-115429 (B) 293T whole cell lysate.

YAP (63.7): sc-101199. Immunofluorescence staining of formalin-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human endometrium tissue showing nuclear localization (B).

## SELECT PRODUCT CITATIONS

- Doller, A. 2008. Elevated YAP and its downstream targets CCN1 and CCN2 in basal cell carcinoma: impact on keratinocyte proliferation and stromal cell activation. *Proc. Natl. Acad. Sci. USA* 28: 2608-2625.
- Ren, Y.R., et al. 2011. Structural analysis of the cancer-specific promoter in mesothelin and in other genes overexpressed in cancers. *J. Biol. Chem.* 286: 11960-11969.
- Taylor, M.D., et al. 2012. Molecular subgroups of medulloblastoma: the current consensus. *Acta Neuropathol.* 123: 465-472.
- Serrano, I., et al. 2013. Inactivation of the Hippo tumour suppressor pathway by integrin-linked kinase. *Nat. Commun.* 4: 2976.
- Azzolin, L., et al. 2014. YAP/TAZ incorporation in the  $\beta$ -catenin destruction complex orchestrates the Wnt response. *Cell* 158: 157-170.
- Lin, L., et al. 2015. The Hippo effector YAP promotes resistance to RAF- and MEK-targeted cancer therapies. *Nat. Genet.* 47: 250-256.
- Kwan, J., et al. 2016. DLG5 connects cell polarity and Hippo signaling protein networks by linking PAR-1 with MST1/2. *Genes Dev.* 30: 2696-2709.
- Oria, R., et al. 2017. Force loading explains spatial sensing of ligands by cells. *Nature* 552: 219-224.
- Frank, S.R., et al. 2018. p190 RhoGAP promotes contact inhibition in epithelial cells by repressing YAP activity. *J. Cell Biol.* 217: 3183-3201.
- Kumar, D., et al. 2019. YAP promotes neural crest emigration through interactions with BMP and Wnt activities. *Cell Commun. Signal.* 17: 69.
- Chen, Y., et al. 2020. Systematic analysis of the Hippo pathway organization and oncogenic alteration in evolution. *Sci. Rep.* 10: 3173.

## CONJUGATES

See **YAP (G-6): sc-376830** for YAP antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor<sup>®</sup> 488, 546, 594, 647, 680 and 790.