SANTA CRUZ BIOTECHNOLOGY, INC.

YAP (H-9): sc-271134

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

REFERENCES

1. Sudol, M., et al. 1995. Characterization of the mammalian YAP (Yes-associated protein) gene and its role in defining a novel protein module, the WW domain. J. Biol. Chem. 270: 14733-14741.
2. Basu, S., et al. 2003. Akt phosphorylates the Yes-associated protein, YAP, to induce interaction with 14-3-3 and attenuation of p73-mediated apoptosis. Mol. Cell 11: 11-23.

CHROMOSOMAL LOCATION

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

SOURCE

YAP (H-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 379-407 near the C-terminus of YAP of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-271134 X, 200 µg/0.1 ml.

YAP (H-9) is available conjugated to either Alexa Fluor® 546 (sc-271134 AF546) or Alexa Fluor® 594 (sc-271134 AF594), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271134 AF680) or Alexa Fluor® 790 (sc-271134 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271134 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

YAP (H-9) is recommended for detection of YAP of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

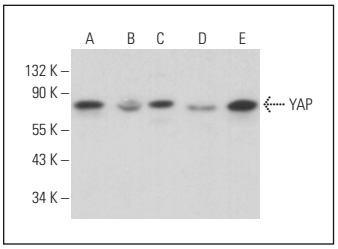
Suitable for use as control antibody for YAP siRNA (h): sc-38637, YAP siRNA (m): sc-38638, YAP shRNA Plasmid (h): sc-38637-SH, YAP shRNA Plasmid (m): sc-38638-SH, YAP shRNA (h) Lentiviral Particles: sc-38637-V and YAP shRNA (m) Lentiviral Particles: sc-38638-V.

YAP (H-9) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

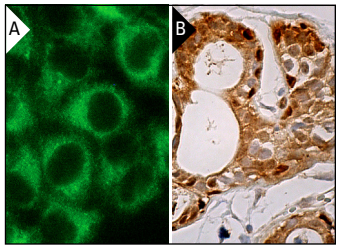
Molecular Weight of YAP: 65 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, NIH/3T3 whole cell lysate: sc-2210 or C6 whole cell lysate: sc-364373.

DATA



YAP (H-9): sc-271134. Western blot analysis of YAP expression in Hep G2 (**A**), U-2 OS (**B**), NIH/3T3 (**C**), C6 (**D**) and AT3B-1 (**E**) whole cell lysates.



YAP (H-9): sc-271134. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human breast tissue showing nuclear and cytoplasmic staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Nejigane, S., et al. 2013. Hippo signaling components, Mst1 and Mst2, act as a switch between self-renewal and differentiation in *Xenopus* hematopoietic and endothelial progenitors. Int. J. Dev. Biol. 57: 407-414.
2. Tharp, K.M., et al. 2018. Actomyosin-mediated tension orchestrates uncoupled respiration in adipose tissues. Cell Metab. 27: 602-615.
3. Chen, M., et al. 2018. The MST4-MOB4 complex disrupts the MST1-MOB1 complex in the Hippo-YAP pathway and plays a pro-oncogenic role in pancreatic cancer. J. Biol. Chem. 293: 14455-14469.
4. Jiao, S., et al. 2018. Targeting IRF3 as a YAP agonist therapy against gastric cancer. J. Exp. Med. 215: 699-718.
5. Muppala, S., et al. 2018. YAP and TAZ are distinct effectors of corneal myofibroblast transformation. Exp. Eye Res. 180: 102-109.

RESEARCH USE

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