

YAP (m2): 293T Lysate: sc-124676

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., Bork, P., Einbond, A., Kastury, K., Druck, T., Negrini, M., Huebner, K. and Lehman, D. 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., Totty, N.F., Irwin, M.S., Sudol, M. and Downward, J. 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.
3. Zhang, J., Smolen, G.A. and Haber, D.A. 2008. Negative regulation of YAP by LATS1 underscores evolutionary conservation of the *Drosophila* Hippo pathway. *Cancer Res.* 68: 2789-2794.
4. Yokoyama, T., Osada, H., Murakami, H., Tatematsu, Y., Taniguchi, T., Kondo, Y., Yatabe, Y., Hasegawa, Y., Shimokata, K., Horio, Y., Hida, T. and Sekido, Y. 2008. YAP1 is involved in mesothelioma development and negatively regulated by Merlin through phosphorylation. *Carcinogenesis* 29: 2139-2146.
5. Danovi, S.A., Rossi, M., Gudmundsdottir, K., Yuan, M., Melino, G. and Basu, S. 2008. Yes-associated protein (YAP) is a critical mediator of c-Jun-dependent apoptosis. *Cell Death Differ.* 15: 217-219.
6. Yuan, M., Tomlinson, V., Lara, R., Holliday, D., Chelala, C., Harada, T., Gangeswaran, R., Manson-Bishop, C., Smith, P., Danovi, S.A., Pardo, O., Crook, T., Mein, C.A., Lemoine, N.R., Jones, L.J. and Basu, S. 2008. Yes-associated protein (YAP) functions as a tumor suppressor in breast. *Cell Death Differ.* 15: 1752-1759.
7. Hao, Y., Chun, A., Cheung, K., Rashidi, B. and Yang, X. 2008. Tumor suppressor LATS1 is a negative regulator of oncogene YAP. *J. Biol. Chem.* 283: 5496-5509.
8. Oka, T., Mazack, V. and Sudol, M. 2008. Mst2 and Lats kinases regulate apoptotic function of Yes kinase-associated protein (YAP). *J. Biol. Chem.* 283: 27534-27546.

CHROMOSOMAL LOCATION

Genetic locus: Yap1 (mouse) mapping to 9 A1.

PRODUCT

YAP (m2): 293T Lysate represents a lysate of mouse YAP transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

YAP (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive YAP antibodies. Recommended use: 10-20 µl per lane.

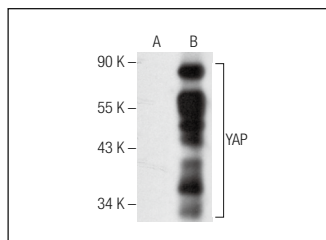
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

YAP (G-6): sc-376830 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse YAP expression in YAP transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

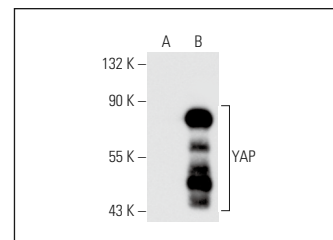
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



YAP (G-6): sc-376830. Western blot analysis of YAP expression in non-transfected: sc-117752 (A) and mouse YAP transfected: sc-124676 (B) 293T whole cell lysates.



YAP (63.7): sc-101199. Western blot analysis of YAP expression in non-transfected: sc-117752 (A) and mouse YAP transfected: sc-124676 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.