

p-TAZ (Ser 89)-R: sc-17610-R

BACKGROUND

The transcriptional co-activator with PDZ-binding motif (TAZ) is a 14-3-3-binding molecule. 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. TAZ may link events at the plasma membrane and cytoskeleton to nuclear transcription in a manner that can be regulated by 14-3-3. TAZ shares homology with the WW domain of Yes-associated protein (YAP) and functions as a transcriptional co-activator by binding to the PPXY motif present on transcription factors. TAZ recognizes immunoreactive protein bands in lysates from MDCK, NIH/3T3 and 293T cells. In addition, COS7, HepG2, CHO and HeLa cells express endogenous TAZ. 14-3-3 binding requires TAZ phosphorylation on a single Serine 89 residue, resulting in the inhibition of TAZ transcriptional co-activation through 14-3-3-mediated nuclear export.

REFERENCES

1. Kanai, F., Marignani, P., Sarbassova, D., Tagi, R., Hall, R., Donowitz, M., Hisaminato, A., Fujiwara, T., Ito, Y., Cantley, L. and Yaffe, M. 2000. TAZ: a novel transcriptional co-activator regulated by interactions with 14-3-3 and PDZ domain proteins. *EMBO J.* 19: 6778-6791.
2. Fu, H., Subramanian, R. and Masters, S. 2000. 14-3-3 proteins: structure, function and regulation. *Annu. Rev. Pharmacol. Toxicol.* 40: 617-647.
3. Garner, C., Nash, J. and Hagan, R. 2000. PDZ Domains in synapse assembly and signalling. *Trends Cell Biol.* 7: 274-280.
4. Baldin, V. 2000. 14-3-3 Proteins and growth control. *Prog. Cell Cycle Res.* 4: 49-60.
5. Muslin, A. and Xing, H. 2000. 14-3-3 Proteins: regulation of subcellular localization by molecular interference. *Cell. Signal.* 11-12: 703-709.

CHROMOSOMAL LOCATION

Genetic locus: WWTR1 (human) mapping to 3q25.1; Wwtr1 (mouse) mapping to 3 D.

SOURCE

p-TAZ (Ser 89)-R is a rabbit polyclonal antibody raised against a short amino acid sequence containing Ser-89 phosphorylated TAZ of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17610 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

RESEARCH USE

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

APPLICATIONS

p-TAZ (Ser 89)-R is recommended for detection of Ser 89 phosphorylated TAZ 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).

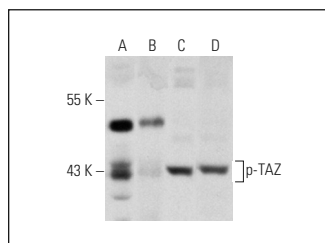
p-TAZ (Ser 89)-R is also recommended for detection of correspondingly phosphorylated TAZ in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TAZ siRNA (h): sc-38568, TAZ siRNA (m): sc-38569, TAZ shRNA Plasmid (h): sc-38568-SH, TAZ shRNA Plasmid (m): sc-38569-SH, TAZ shRNA (h) Lentiviral Particles: sc-38568-V and TAZ shRNA (m) Lentiviral Particles: sc-38569-V.

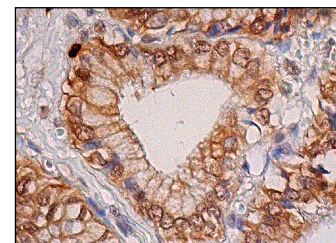
Molecular Weight of p-TAZ: 45 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

DATA



Western blot analysis of TAZ phosphorylation in untreated (A, C) and lambda protein phosphatase (sc-200312A) treated (B, D) HeLa whole cell lysates. Antibodies tested include p-TAZ (Ser 89)-R: sc-17610-R (A, B) and TAZ (H-70): sc-48805 (C, D).



p-TAZ (Ser 89)-R: sc-17610-R. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing nuclear, cytoplasmic and membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Bendinelli, P., Maroni, P., Matteucci, E., Luzzati, A., Perrucchini, G. and Desiderio, M.A. 2013. Hypoxia inducible factor-1 is activated by transcriptional co-activator with PDZ-binding motif (TAZ) versus WWdomain-containing oxidoreductase (WVVOX) in hypoxic microenvironment of bone metastasis from breast cancer. *Eur. J. Cancer* 49: 2608-2618.

PROTOCOLS

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