

# PTIP (T-20): sc-79280

## BACKGROUND

PTIP, also known as PAXIP1 (PAX interacting (with transcription-activation domain) protein 1), TNRC2, CAGF28, CAGF29, PACIP1 or PAXIP1L, is a 1,035 amino acid protein that localizes to both the nuclear membrane and the matrix side of the peripheral membrane and contains 5 BRCT domains. Existing as multiple alternatively spliced isoforms, PTIP functions as a crucial component of the DNA damage response pathway, specifically recognizing phosphorylated substrates and acting as a phosphoserine or phosphothreonine-specific binding module. Additionally, via its protein binding capabilities, PTIP may be involved in early development and cellular proliferation.

## REFERENCES

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2. Cho, E.A., Prindle, M.J. and Dressler, G.R. 2003. BRCT domain-containing protein PTIP is essential for progression through mitosis. *Mol. Cell. Biol.* 23: 1666-1673.
3. Manke, I.A., Lowery, D.M., Nguyen, A. and Yaffe, M.B. 2003. BRCT repeats as phosphopeptide-binding modules involved in protein targeting. *Science* 302: 636-639.
4. Rademakers, R., Cruts, M., Sleegers, K., Dermaut, B., Theuns, J., Aulchenko, Y., Weckx, S., De Pooter, T., Van den Broeck, M., Corsmit, E., De Rijk, P., Del-Favero, J., van Swieten, J., van Duijn, C.M. and Van Broeckhoven, C. 2005. Linkage and association studies identify a novel locus for Alzheimer disease at 7q36 in a Dutch population-based sample. *Am. J. Hum. Genet.* 77: 643-652.
5. Cho, Y.W., Hong, T., Hong, S., Guo, H., Yu, H., Kim, D., Guszczynski, T., Dressler, G.R., Copeland, T.D., Kalkum, M. and Ge, K. 2007. PTIP associates with MLL3- and MLL4-containing Histone H3 Lysine 4 methyltransferase complex. *J. Biol. Chem.* 282: 20395-20406.

## CHROMOSOMAL LOCATION

Genetic locus: PAXIP1 (human) mapping to 7q36.2; Paxip1 (mouse) mapping to 5 B1.

## SOURCE

PTIP (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of PTIP of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79280 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.

## APPLICATIONS

PTIP (T-20) is recommended for detection of PTIP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PTIP (T-20) is also recommended for detection of PTIP in additional species, including bovine and avian.

Suitable for use as control antibody for PTIP siRNA (h): sc-76287, PTIP siRNA (m): sc-76288, PTIP shRNA Plasmid (h): sc-76287-SH, PTIP shRNA Plasmid (m): sc-76288-SH, PTIP shRNA (h) Lentiviral Particles: sc-76287-V and PTIP shRNA (m) Lentiviral Particles: sc-76288-V.

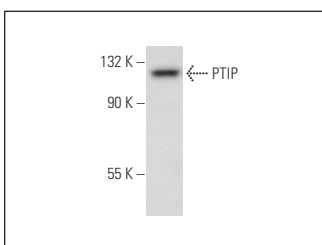
Molecular Weight of PTIP: 130 kDa.

Positive Controls: SH-SY5Y nuclear extract: sc-364820 or U-251-MG whole cell lysate: sc-364176.

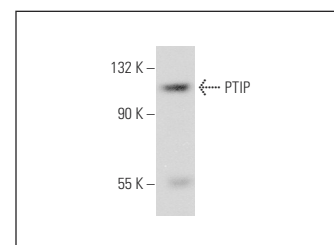
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



PTIP (T-20): sc-79280. Western blot analysis of PTIP expression in U-251-MG whole cell lysate.



PTIP (T-20): sc-79280. Western blot analysis of PTIP expression in SH-SY5Y nuclear extract.

## RESEARCH USE

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

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Try **PTIP (4C11): sc-293322**, our highly recommended monoclonal alternative to PTIP (T-20).