

# RPAP3 (G-17): sc-244041

## BACKGROUND

The tetratricopeptide repeat (TPR) motif is a degenerate, 34 amino acid sequence found in many proteins and acts to mediate protein-protein interactions in various pathways. At the sequence level, there can be up to 16 tandem TPR repeats, each of which has a helix-turn-helix shape that stacks on other TPR repeats to achieve ligand binding specificity. RPAP3 (RNA polymerase II-associated protein 3) is a 665 amino acid protein that contains 7 TRP repeats and is expressed as multiple alternatively spliced isoforms. Existing as a tightly associated component of the RNA polymerase II (Pol II) complex, RPAP3 functions to form an interface between Pol II and scaffolding proteins, thereby playing a role in the regulation of protein complex formation.

## REFERENCES

- Young, J.C., Obermann, W.M. and Hartl, F.U. 1998. Specific binding of tetratricopeptide repeat proteins to the C-terminal 12 kDa domain of HSP 90. *J. Biol. Chem.* 273: 18007-18010.
- Cortajarena, A.L., Kajander, T., Pan, W., Cocco, M.J. and Regan, L. 2004. Protein design to understand peptide ligand recognition by tetratricopeptide repeat proteins. *Protein Eng. Des. Sel.* 17: 399-409.
- Jeronimo, C., Forget, D., Bouchard, A., Li, Q., Chua, G., Poitras, C., Thérien, C., Bergeron, D., Bourassa, S., Greenblatt, J., Chabot, B., Poirier, G.G., Price, D.H. Hughes, T.R., Blanchette, M. and Coulombe, B. 2007. Systematic analysis of the protein interaction network for the human transcription machinery reveals the identity of the 7SK capping enzyme. *Mol. Cell* 27: 262-274.
- Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611477. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Itsuki, Y., Saeki, M., Nakahara, H., Egusa, H., Irie, Y., Terao, Y., Kawabata, S., Yatani, H. and Kamisaki, Y. 2008. Molecular cloning of novel Monad binding protein containing tetratricopeptide repeat domains. *FEBS Lett.* 582: 2365-2370.

## CHROMOSOMAL LOCATION

Genetic locus: RPAP3 (human) mapping to 12q13.11; Rpap3 (mouse) mapping to 15 F1.

## SOURCE

RPAP3 (G-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RPAP3 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-244041 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

RPAP3 (G-17) is recommended for detection of RPAP3 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with RPAP1 or RPAP2.

RPAP3 (G-17) is also recommended for detection of RPAP3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for RPAP3 siRNA (h): sc-95730, RPAP3 siRNA (m): sc-153099, RPAP3 shRNA Plasmid (h): sc-95730-SH, RPAP3 shRNA Plasmid (m): sc-153099-SH, RPAP3 shRNA (h) Lentiviral Particles: sc-95730-V and RPAP3 shRNA (m) Lentiviral Particles: sc-153099-V.

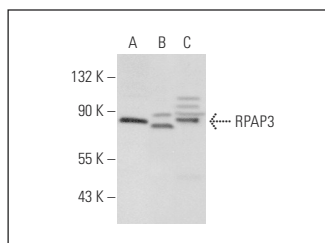
Molecular Weight of RPAP3: 76 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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



RPAP3 (G-17): sc-244041. Western blot analysis of RPAP3 expression in Jurkat (A), HeLa (B) and NIH/3T3 (C) whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

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