



## $\gamma$ Tubulin ( $\gamma$ N-20): sc-26147

### BACKGROUND

TUB4, the gene for *Saccharomyces cerevisiae*  $\gamma$ -Tubulin, encodes a 473-amino acid structural protein that localizes to the spindle pole body.  $\gamma$ -Tubulin, an essential protein for cell growth, organizes microtubule arrays in the nucleus and cytoplasm.  $\gamma$ -Tubulin-depleted cells fail to form functional spindles and arrest during nuclear division.  $\gamma$ -Tubulin associates with spindle body components Spc97 and Spc98 to form the  $\gamma$ -Tubulin complex. The budding yeast  $\gamma$ -Tubulin complex contains one molecule each of Spc97 and Spc98 and two molecules of  $\gamma$ -Tubulin. In the SPB, Spc110 binds Spc97 and Spc98 of the  $\gamma$ -Tubulin complex. 2D gel analysis indicates five isoforms of  $\gamma$ -Tubulin. The phosphorylation of  $\gamma$ -Tubulin at Tyr 445 plays a regulatory role in microtubule formation. The incidence rate for this phosphorylation event peaks during G1.

### REFERENCES

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3. Geissler, S., Pereira, G., Spang, A., Knop, M., Soues, S., Kilmartin, J., and Schiebel, E. 1996. The spindle pole body component Spc98p interacts with the  $\gamma$ -tubulin-like Tub4p of *Saccharomyces cerevisiae* at the sites of microtubule attachment. *EMBO J.* 15: 3899-3911.
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5. Knop, M., and Schiebel, E. 1997. Spc98p and Spc97p of the yeast gamma-Tubulin complex mediate binding to the spindle pole body via their interaction with Spc110p. *EMBO J.* 16: 6985-6995.
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7. Vinh, D.B., Kern, J.W., Hancock, W.O., Howard, J., and Davis, T.N. 2002. Reconstitution and characterization of budding yeast gamma-Tubulin complex. *Mol. Biol. Cell* 13: 1144-1157.

### SOURCE

$\gamma$  Tubulin ( $\gamma$ N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of  $\gamma$ -Tubulin of *Saccharomyces cerevisiae* origin.

### PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-26147 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

$\gamma$  Tubulin ( $\gamma$ N-20) is recommended for detection of  $\gamma$ -Tubulin of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of  $\gamma$  Tubulin: 50 kDa.

### 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.

### 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.

### PROTOCOLS

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