



γ Tubulin (aL-18): sc-12881

BACKGROUND

TUB4, the gene for *Saccharomyces cerevisiae* γ Tubulin, encodes a 473-amino acid structural protein that localizes to the spindle pole body. γ Tubulin, an essential protein for cell growth, organizes microtubule arrays in the nucleus and cytoplasm. γ Tubulin-depleted cells fail to form functional spindles and arrest during nuclear division. γ Tubulin associates with spindle body components Spc97 and Spc98 to form the γ Tubulin complex. The budding yeast γ Tubulin complex contains one molecule each of Spc97 and Spc98 and two molecules of γ Tubulin. In the SPB, Spc110 binds Spc97 and Spc98 of the γ Tubulin complex. 2D gel analysis indicates five isoforms of γ Tubulin. The phosphorylation of γ 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 γ Tubulin-like Tub4p of *Saccharomyces cerevisiae* at the sites of microtubule attachment. *EMBO J.* 15:3899-3911.
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SOURCE

γ Tubulin (aL-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of γ Tubulin of *Arabidopsis thaliana* origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-12881 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

γ Tubulin (aL-18) is recommended for detection of γ Tubulin of *Arabidopsis thaliana*, *Nicotiana tabacum* and *Zea mays* 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).

Molecular Weight of γ 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. 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.

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 or our catalog for detailed protocols and support products.