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# $\alpha$ 3C Tubulin (h2): 293T Lysate: sc-173307

## BACKGROUND

Tubulin is a major cytoskeleton component that has five distinct forms, designated  $\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\delta$  and  $\epsilon$  Tubulin.  $\alpha$  and  $\beta$  tubulins form heterodimers which multimerize to form a microtubule filament. There are five  $\beta$  Tubulin isoforms ( $\beta$ 1,  $\beta$ 2,  $\beta$ 3,  $\beta$ 4A and  $\beta$ 4B) that are expressed in mammalian tissues.  $\beta$ 1 and  $\beta$ 4 are present throughout the cytosol,  $\beta$ 2 is present in the nuclei and nucleoplasm, and  $\beta$ 3 is a neuron-specific cytoskeletal protein.  $\gamma$  Tubulin forms the gammasome, which is required for nucleating microtubule filaments at the centrosome. Both  $\delta$  Tubulin and  $\epsilon$  Tubulin are associated with the centrosome.  $\delta$  Tubulin is a homolog of the *Chlamydomonas*  $\delta$  Tubulin Uni3 and is found in association with the centrioles, whereas  $\epsilon$  Tubulin localizes to the pericentriolar material.  $\epsilon$  Tubulin exhibits a cell cycle-specific pattern of localization; first associating with only the older of the centrosomes in a newly duplicated pair, and later associating with both centrosomes.

## REFERENCES

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- Leask, A. and Stearns, T. 1998. Expression of amino- and carboxyl-terminal  $\gamma$  and  $\beta$  Tubulin mutants in cultured epithelial cells. *J. Biol. Chem.* 273: 2661-2668.
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- Woulfe, J. and Munoz, D. 2000. Tubulin immunoreactive neuronal intra-nuclear inclusions in the human brain. *Neuropathol. Appl. Neurobiol.* 26: 161-171.
- Chang, P. and Stearns, T. 2000.  $\delta$  Tubulin and  $\epsilon$  Tubulin: two new human centrosomal tubulins reveal new aspects of centrosome structure and function. *Nat. Cell Biol.* 2: 30-35.

## CHROMOSOMAL LOCATION

Genetic locus: TUBA3C (human) mapping to 13q12.11.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PRODUCT

$\alpha$ 3C Tubulin (h2): 293T Lysate represents a lysate of human  $\alpha$ 3C Tubulin transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

$\alpha$ 3C Tubulin (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive  $\alpha$ 3C Tubulin antibodies. Recommended use: 10-20  $\mu$ l per lane.

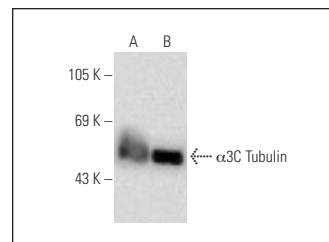
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

$\alpha$  Tubulin (DM1A): sc-32293 is recommended as a positive control antibody for Western Blot analysis of enhanced human  $\alpha$ 3C Tubulin expression in  $\alpha$ 3C Tubulin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

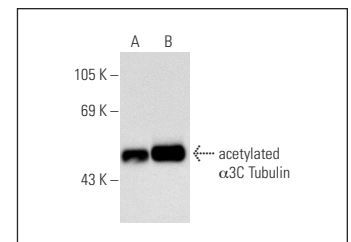
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



$\alpha$  Tubulin (DM1A): sc-32293. Western blot analysis of  $\alpha$ 3C Tubulin expression in non-transfected: sc-117752 (A) and human  $\alpha$ 3C Tubulin transfected: sc-173307 (B) 293T whole cell lysates.



acetylated  $\alpha$  Tubulin (6-11B-1): sc-23950. Western blot analysis of acetylated  $\alpha$ 3C Tubulin expression in non-transfected: sc-117752 (A) and human  $\alpha$ 3C Tubulin transfected: sc-173307 (B) 293T 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) for detailed protocols and support products.