

# $\alpha$ 1a Tubulin (A-21): sc-135659

## 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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## CHROMOSOMAL LOCATION

Genetic locus: TUBA1A (human) mapping to 12q13.12; Tuba1a (mouse) mapping to 15 F1.

## RESEARCH USE

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

## SOURCE

$\alpha$ 1a Tubulin (A-21) is a rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of  $\alpha$ 1a Tubulin of human origin.

## PRODUCT

Each vial contains IgG in 100  $\mu$ l of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

$\alpha$ 1a Tubulin (A-21) is recommended for detection of  $\alpha$ 1a Tubulin and  $\alpha$ 1b Tubulin of mouse, rat and human origin by Western Blotting (starting dilution to be determined by researcher, dilution range 1:100-1:5000) and immunoprecipitation [1-2  $\mu$ l per 100-500  $\mu$ g of total protein (1 ml of cell lysate)].

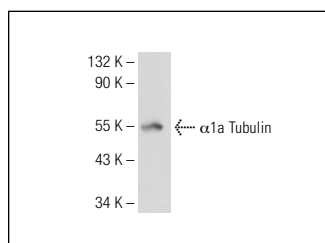
Molecular Weight of  $\alpha$ 1a Tubulin: 50 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or Ramos cell lysate: sc-2216.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

## DATA



$\alpha$ 1a Tubulin (A-21): sc-135659. Western blot analysis of  $\alpha$ 1a Tubulin expression in HeLa whole cell lysate.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.


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Try  **$\alpha$ 1a Tubulin (7-RY28): sc-134237**, our highly recommended monoclonal alternative to  $\alpha$ 1a Tubulin (A-21).