

β Tubulin (N-20): sc-9935



The Research Foundation

BACKGROUND

Tubulin is a major cytoskeleton component that has five distinct forms, designated α , β , γ , δ and ϵ tubulin. α and β Tubulins form heterodimers which multimerize to form a microtubule filament. Multiple β Tubulin isoforms ($\beta 1$, $\beta 2$, $\beta 3$, $\beta 4$, $\beta 5$, $\beta 6$ and $\beta 8$) have been characterized and 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. γ Tubulin forms the gammasome, which is required for nucleating microtubule filaments at the centrosome. Both δ Tubulin and ϵ Tubulin are associated with the centrosome. δ Tubulin is a homolog of the *Chlamydomonas* δ Tubulin Uni3 and is found in association with the centrioles, whereas ϵ Tubulin localizes to the pericentriolar material. ϵ 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 γ and β Tubulin mutants in cultured epithelial cells. *J. Biol. Chem.* 273: 2661-2668.
- Ludueno, R.F. 1998. Multiple forms of tubulin: different gene products and covalent modifications. *Int. Rev. Cytol.* 178: 207-275.
- Walss, C., Kreisberg, J.I. and Ludueno, R.F. 1999. Presence of the $\beta 2$ isotype of tubulin in the nuclei of cultured mesangial cells from rat kidney. *Cell Motil. Cytoskeleton* 42: 274-284.

SOURCE

β Tubulin (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of β Tubulin of human 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-9935 P, (100 μ g 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.

RESEARCH USE

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

APPLICATIONS

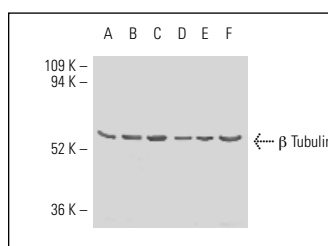
β Tubulin (N-20) is recommended for detection of β Tubulin, $\beta 2A$ Tubulin, $\beta 2B$ Tubulin, $\beta 2C$, $\beta 3$ Tubulin, $\beta 4$ Tubulin, $\beta 4Q$ Tubulin, $\beta 6$ Tubulin and $\beta 8$ Tubulin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

β Tubulin (N-20) is also recommended for detection of β Tubulin, $\beta 2A$ Tubulin, $\beta 2B$ Tubulin, $\beta 2C$, $\beta 3$ Tubulin, $\beta 4$ Tubulin, $\beta 4Q$ Tubulin, $\beta 6$ Tubulin and $\beta 8$ Tubulin in additional species, including equine, canine, bovine, porcine and avian.

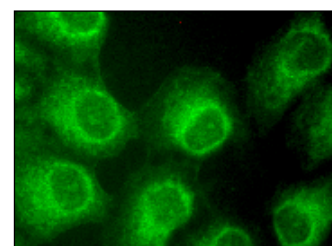
Molecular Weight of β Tubulin: 55 kDa.

Positive Controls: $\beta 2C$ Tubulin (h2): 293T Lysate: sc-114016, BJAB whole cell lysate: sc-2207 or NIH/3T3 whole cell lysate: sc-2210.

DATA



β Tubulin (N-20): sc-9935. Western blot analysis of β Tubulin expression in HeLa (A), A-431 (B), KNRK (C), BJAB (D), NIH/3T3 (E) and K-562 (F) whole cell lysates.



β Tubulin (N-20): sc-9935. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

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- Li, G., et al. 2010. Modulation of inflammatory markers by miR-146a during replicative senescence in trabecular meshwork cells. *Invest. Ophthalmol. Vis. Sci.* 51: 2976-2985.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.