

β Tubulin (dN-17): sc-20852

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

- Weisenberg, R. 1981. Invited review: the role of nucleotide triphosphate in Actin and tubulin assembly and function. *Cell Motil.* 1: 485-497.
- Burns, R.G. 1991. α , β and γ Tubulins: sequence comparisons and structural constraints. *Cell Motil. Cytoskeleton* 20: 181-189.
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- Leask, A., et al. 1998. Expression of amino- and carboxyl-terminal γ and α Tubulin mutants in cultured epithelial cells. *J. Biol. Chem.* 273: 2661-2668.
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SOURCE

β Tubulin (dN-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of β Tubulin of *Drosophila melanogaster* 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-20852 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

β Tubulin (dN-17) is recommended for detection of β Tubulin of *Drosophila melanogaster* 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).

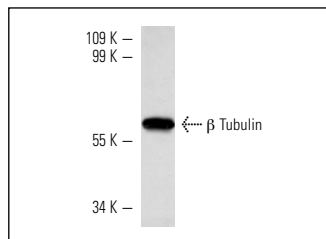
Molecular Weight of β Tubulin: 55 kDa.

Positive Controls: Schneider's *Drosophila* whole cell lysate.

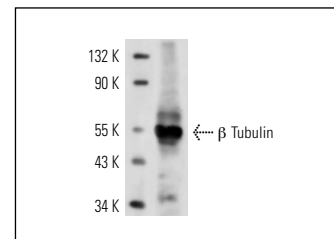
STORAGE

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

DATA



β Tubulin (dN-17): sc-20852. Western blot analysis of β Tubulin expression in Schneider's *Drosophila* line 2 whole cell lysate.



β Tubulin (dN-17): sc-20852. Western blot analysis of β Tubulin expression in Schneider's *Drosophila* whole cell lysate.

SELECT PRODUCT CITATIONS

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- Murata, T., et al. 2008. RNA-binding protein hoip accelerates polyQ-induced neurodegeneration in *Drosophila*. *Biosci. Biotechnol. Biochem.* 72: 2255-2261.
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RESEARCH USE

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

MONOS
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Try **β Tubulin (E-10): sc-365791**, our highly recommended monoclonal alternative to β Tubulin (dN-17).