

β Tubulin (E-10): sc-365791

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 (β 1, β 2, β 3, β 4, β 5, β 6 and β 8) have been characterized and are expressed in mammalian tissues. β 1 and β 4 are present throughout the cytosol, β 2 is present in the nuclei and nucleoplasm, and β 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.

SOURCE

β Tubulin (E-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 13-43 near the N-terminus of β Tubulin of *Drosophila melanogaster* origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

β Tubulin (E-10) is available conjugated to agarose (sc-365791 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365791 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365791 PE), fluorescein (sc-365791 FITC), Alexa Fluor[®] 488 (sc-365791 AF488), Alexa Fluor[®] 546 (sc-365791 AF546), Alexa Fluor[®] 594 (sc-365791 AF594) or Alexa Fluor[®] 647 (sc-365791 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365791 AF680) or Alexa Fluor[®] 790 (sc-365791 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365791 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

β Tubulin (E-10) is recommended for detection of β Tubulin of *Drosophila melanogaster* origin by Western Blotting (starting dilution 1:100, 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* line 2 whole cell lysate.

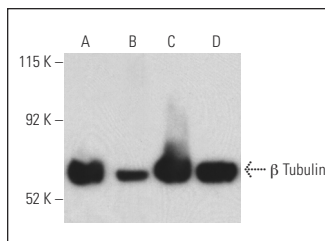
STORAGE

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

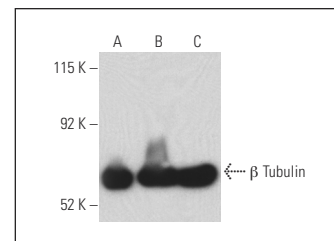
RESEARCH USE

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

DATA



β Tubulin (E-10): sc-365791. Western blot analysis of β Tubulin expression in Caki-1 (A), THP-1 (B), HeLa (C) and HT-1080 (D) whole cell lysates. Detection reagent used: m-IgG₁ BP-HRP: sc-525408.



β Tubulin (E-10): sc-365791. Western blot analysis of β Tubulin expression in A549 (A), U-251-MG (B) and PC-3 (C) whole cell lysates. Detection reagent used: m-IgG₁ BP-HRP: sc-525408.

SELECT PRODUCT CITATIONS

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- Zhai, H., et al. 2019. Cadmium induces A549 cell migration and invasion by activating ERK. *Exp. Ther. Med.* 18: 1793-1799.
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- Grotz, A.K., et al. 2020. A CRISPR/Cas9 genome editing pipeline in the EndoC- β H1 cell line to study genes implicated in β cell function. *Wellcome Open Res.* 4: 150.
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- Métivier, M., et al. 2021. *Drosophila* Tubulin-specific chaperone E recruits Tubulin around chromatin to promote mitotic spindle assembly. *Curr. Biol.* 31: 684-695.e6.

PROTOCOLS

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