**β Tubulin (F-1): sc-166729**

**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 (β1, β2, β3, β4, β5, β6 and β8) have been characterized and are expressed in mammalian tissues. β1 and β4 are present throughout the cytosol, β2 is present in the nuclei and nucleolus, and β3 is a neuron-specific cytoskeletal protein. γ Tubulin forms the gamaasome, which is required for nucleating microtubule filaments at the centrosome. Both δ Tubulin and e 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 e Tubulin localizes to the pericentriolar material. e 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 (F-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 415-440 near the C-terminus of β-Tubulin of Arabidopsis thaliana origin.

**PRODUCT**

Each vial contains 200 μg IgG kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin

β Tubulin (F-1) is available conjugated to agarose (sc-166729 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166729 HRP), 200 μg/ml, for WB, IHC and ELISA; to either phycoerythrin (sc-166729 PE), fluorescein (sc-166729 FITC), Alexa Fluor® 488 (sc-166729 AF488), Alexa Fluor® 546 (sc-166729 AF546), Alexa Fluor® 594 (sc-166729 AF594) or Alexa Fluor® 647 (sc-166729 AF647), 200 μg/ml, for WB (RGB), IF, IHC(P) and FC; and to either Alexa Fluor® 680 (sc-166729 AF680) or Alexa Fluor® 790 (sc-166729 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FC.

Blocking peptide available for competition studies, sc-166729 P (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

**APPLICATIONS**

β Tubulin (F-1) is recommended for detection of β Tubulin of mouse, rat, human, Arabidopsis thaliana, Zea mays and Pisum sativum origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg 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: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or Jurkat whole cell lysate: sc-2204.

**RESEARCH USE**

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

**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 (F-1) sc-166729. Western blot analysis of β Tubulin expression in K-562 (A), BJAB (B), A-431 (C), HeLa (D), Jurkat (E), NIH/3T3 (F) and KNX (G) whole cell lysates.

β Tubulin (F-1) Alexa Fluor® 488 sc-166729 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing cytoskeletal localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (A).

β Tubulin (F-1) HRP sc-166729 HRP. Direct immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing cytoplasmic and membrane staining of glandular cells. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214 (B).

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

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

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