β Tubulin (3F3-G2): sc-53140

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 nucleoplasm, and β3 is a neuron-specific cytoskeletal protein. γ Tubulin forms the gammaII, 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 the only the older of the centrosomes in a newly duplicated pair, and later associating with both centrosomes.

RESEARCH USE

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

DATA

β Tubulin (3F3-G2): sc-53140, Western blot analysis of β Tubulin expression in BJAB (A), NALM/6WA (B), Raji (C) and Daudi (D) whole cell lysates.

β Tubulin (3F3-G2): sc-53140, Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human epididymis tissue showing cytoplasmic and membrane localization of glandular cells (B).

SELECT PRODUCT CITATIONS


SOURCE

β Tubulin (3F3-G2) is a mouse monoclonal antibody raised against brain extract of rat origin.

PRODUCT

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

APPLICATIONS

β Tubulin (3F3-G2) is recommended for detection of all vertebrate forms of β Tubulin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of β Tubulin: 55 kDa.

Positive Controls: C6 whole cell lysate: sc-364373, Raji whole cell lysate: sc-364236 or BJAB whole cell lysate: sc-2207.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG HRP; sc-516102 or m-IgG HRP (Cruz Marker); sc-516102-CM (dilution range: 1:1000-1:10000). Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG HRP-FITC: sc-516140 or m-IgG HRP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG HRP-HP: sc-516102 with DAB, 50X: sc-24982 and Immunohisto mounting: sc-45086, or Organo/Limonene Mount: sc-45087.

STORAGE

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