**BACKGROUND**

Tubulin is a major cytoskeleton component that has five distinct forms, designated \(\alpha\), \(\beta\), \(\gamma\), \(\delta\) and \(\epsilon\) Tubulin. \(\alpha\) and \(\beta\) Tubulins form heterodimers which multimerize to form a microtubule filament. Multiple \(\beta\) 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. \(\gamma\) Tubulin forms the gamsosme, which is required for nucleating microtubule filaments at the centrosome. Both \(\alpha\) Tubulin and \(\epsilon\) Tubulin are associated with the centrosome. \(\delta\) Tubulin is a homolog of the *Chlamydomonas* \(\delta\) Tubulin Uni3 and is found in association with the centrioles, whereas \(\epsilon\) Tubulin localizes to the pericentriolar material. \(\epsilon\) 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**

\(\beta\) Tubulin (F-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 415-440 near the C-terminus of \(\beta\)-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.

\(\beta\) 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, IHCP 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, IHCP and FCM; 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 FCM.

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).

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**APPLICATIONS**

\(\beta\) Tubulin (F-1) is recommended for detection of \(\beta\) 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 \(\beta\) 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.

**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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