

β Tubulin (37): sc-101527

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.

SOURCE

β Tubulin (37) is a mouse monoclonal antibody raised against recombinant β Tubulin of human 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.

APPLICATIONS

β Tubulin (37) is recommended for detection 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 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunohistochemistry (including paraffin-embedded sections) (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: K-562 whole cell lysate: sc-2203, A-431 whole cell lysate: sc-2201 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 κ BP-HRP: sc-516102 or m-IgG κ BP-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 A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

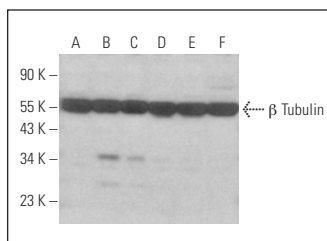
STORAGE

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

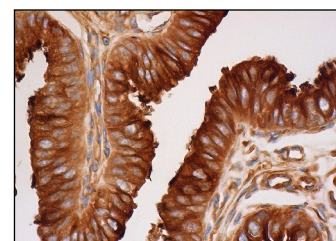
RESEARCH USE

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

DATA



β Tubulin (37): sc-101527. Western blot analysis of β Tubulin expression in K-562 (A), A-431 (B), HeLa (C), BJAB (D), HEL 92.1.7 (E) and Ramos (F) whole cell lysates.



β Tubulin (37): sc-101527. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing cytoskeletal staining of glandular cells.

SELECT PRODUCT CITATIONS

- Cherubini, G., et al. 2011. The FANC pathway is activated by adenovirus infection and promotes viral replication-dependent recombination. *Nucleic Acids Res.* 39: 5459-5473.
- González-Fernández, R., et al. 2015. The neuronal-specific SGK1.1 (SGK1_v2) kinase as a transcriptional modulator of BAG4, Brox, and PPP1CB genes expression. *Int. J. Mol. Sci.* 16: 7462-7477.
- Zhao, Y., et al. 2016. Selenoprotein P neutralizes lipopolysaccharide and participates in hepatic cell endoplasmic reticulum stress response. *FEBS Lett.* 590: 4519-4530.
- Rotoli, D., et al. 2017. Alterations in IQGAP1 expression and localization in colorectal carcinoma and liver metastases following oxaliplatin-based chemotherapy. *Oncol. Lett.* 14: 2621-2628.
- Nie, X., et al. 2018. mTOR acts as a pivotal signaling hub for neural crest cells during craniofacial development. *PLoS Genet.* 14: e1007491.
- Xu, W., et al. 2018. Propofol inhibits Wnt signaling and exerts anticancer activity in glioma cells. *Oncol. Lett.* 16: 402-408.
- Hu, D., et al. 2018. LRRK2 G2019S mutation inhibits degradation of α -synuclein in an *in vitro* model of Parkinson's disease. *Curr. Med. Sci.* 38: 1012-1017.
- Ma, B., et al. 2019. Expression of E-cadherin and specific CXCR3 isoforms impact each other in prostate cancer. *Cell Commun. Signal.* 17: 164.
- Guo, X., et al. 2020. Developmental programming: prenatal testosterone induced changes in epigenetic modulators and gene expression in metabolic tissues of female sheep. *Mol. Cell. Endocrinol.* 514: 110913.



See **β Tubulin (D-10): sc-5274** for β Tubulin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.