

# $\gamma$ Tubulin (C-11): sc-17787

## 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. There are five  $\beta$  Tubulin isoforms ( $\beta 1$ ,  $\beta 2$ ,  $\beta 3$ ,  $\beta 4A$  and  $\beta 4B$ ) that 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 gammasome, which is required for nucleating microtubule filaments at the centrosome. Both  $\delta$  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.

## CHROMOSOMAL LOCATION

Genetic locus: TUBG1/TUBG2 (human) mapping to 17q21.2; Tubg1/Tubg2 (mouse) mapping to 11 D.

## SOURCE

$\gamma$  Tubulin (C-11) is a mouse monoclonal antibody raised against amino acids 269-451 of  $\gamma$  Tubulin of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

$\gamma$  Tubulin (C-11) is available conjugated to agarose (sc-17787 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-17787 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-17787 PE), fluorescein (sc-17787 FITC), Alexa Fluor<sup>®</sup> 488 (sc-17787 AF488), Alexa Fluor<sup>®</sup> 546 (sc-17787 AF546), Alexa Fluor<sup>®</sup> 594 (sc-17787 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-17787 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-17787 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-17787 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

$\gamma$  Tubulin (C-11) is recommended for detection of  $\gamma$  Tubulin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:200-1:2,000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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).

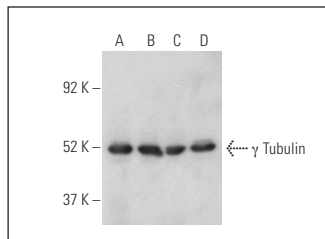
Suitable for use as control antibody for  $\gamma$  Tubulin siRNA (h): sc-29322,  $\gamma$  Tubulin siRNA (m): sc-29323,  $\gamma$  Tubulin shRNA Plasmid (h): sc-29322-SH,  $\gamma$  Tubulin shRNA Plasmid (m): sc-29323-SH,  $\gamma$  Tubulin shRNA (h) Lentiviral Particles: sc-29322-V and  $\gamma$  Tubulin shRNA (m) Lentiviral Particles: sc-29323-V.

Molecular Weight of  $\gamma$  Tubulin: 50 kDa.

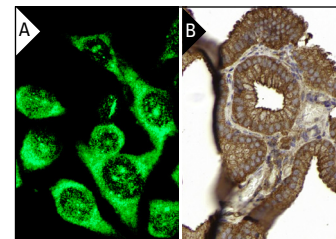
## STORAGE

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

## DATA



$\gamma$  Tubulin (C-11): sc-17787. Western blot analysis of  $\gamma$  Tubulin expression in HeLa (A), Jurkat (B), K-562 (C) and A-431 (D) whole cell lysates. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



$\gamma$  Tubulin (C-11): sc-17787. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

## SELECT PRODUCT CITATIONS

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- Wang, D., et al. 2015. Splicing factor prp8 interacts with NES(AR) and regulates androgen receptor in prostate cancer cells. *Mol. Endocrinol.* 29: 1731-1742.
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- Kong, L., et al. 2017. Centrosomal MCM7 strengthens the Cep68-VHL interaction and excessive MCM7 leads to centrosome splitting resulting from increase in Cep68 ubiquitination and proteasomal degradation. *Biochem. Biophys. Res. Commun.* 489: 497-502.
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- De Martino, M., et al. 2020. Characterization of HMGA1P6 transgenic mouse embryonic fibroblasts. *Cell Cycle* 19: 2281-2285.
- Canu, V., et al. 2021. Aberrant transcriptional and post-transcriptional regulation of SPAG5, a YAP-TAZ-TEAD downstream effector, fuels breast cancer cell proliferation. *Cell Death Differ.* 28: 1493-1511.

## RESEARCH USE

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