

# $\gamma$ Tubulin (H-183): sc-10732

## 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 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 (H-183) is a rabbit polyclonal antibody raised against amino acids 269-451 of  $\gamma$  Tubulin of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

$\gamma$  Tubulin (H-183) is recommended for detection of  $\gamma$  Tubulin of mouse, rat, human and *Xenopus laevis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

$\gamma$  Tubulin (H-183) is also recommended for detection of  $\gamma$  Tubulin in additional species, including equine, canine, bovine, porcine and avian.

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.

Positive Controls:  $\gamma$ 2 Tubulin (h3): 293T Lysate: sc-116279, A-431 whole cell lysate: sc-2201 or K-562 whole cell lysate: sc-2203.

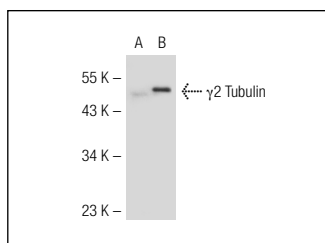
## STORAGE

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

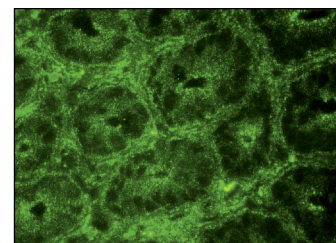
## RESEARCH USE

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

## DATA



$\gamma$  Tubulin (H-183): sc-10732. Western blot analysis of  $\gamma$ 2 Tubulin expression in non-transfected: sc-117752 (A) and human  $\gamma$ 2 Tubulin transfected: sc-116279 (B) 293T whole cell lysates.



$\gamma$  Tubulin (H-183): sc-10732. Immunofluorescence staining of normal mouse intestine frozen section showing cytoplasmic staining.

## SELECT PRODUCT CITATIONS

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- Hölzel, M., et al. 2010. NF1 is a tumor suppressor in neuroblastoma that determines retinoic acid response and disease outcome. *Cell* 142: 218-229.
- Ron, I., et al. 2010. Interaction between parkin and mutant glucocerebrosidase variants: a possible link between Parkinson disease and Gaucher disease. *Hum. Mol. Genet.* 19: 3771-3781.



Try  $\gamma$  Tubulin (C-11): sc-17787 or  $\gamma$  Tubulin (D-10): sc-17788, our highly recommended monoclonal alternatives to  $\gamma$  Tubulin (H-183). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see  $\gamma$  Tubulin (C-11): sc-17787.