**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. There are five β Tubulin isoforms (β1, β2, β3, β4A, and β4B) that 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 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 centrosome. Both α and β Tubulins are associated with the centrosome. α 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.

### References


### Chromosomal Location

Genetic locus: TUBA4A (human) mapping to 2q35; Tuba1a (mouse) mapping to 15 F1.

### Sources

α Tubulin (4G1) is a mouse monoclonal antibody raised against the C-terminus of α Tubulin of human origin.

### Product

Each vial contains IgG1 in 100 μl of PBS with <0.1% sodium azide and 0.1% gelatin.

### 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.

### Recommended Secondary Reagents

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2030 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use Immunocruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

### Data

![Western Blot Analysis](image)

**α Tubulin (4G1)** sc-58666. Western blot analysis of α Tubulin expression in SH-SY5Y (A) whole cell lysate and mouse brain (B) and rat brain (C) tissue extracts.

### Select Product Citations