

α Tubulin (TU-02): sc-8035

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 (β 1, β 2, β 3, β 4, β 5, β 6 and β 8) have been characterized and are expressed in mammalian tissues. β 1 and β 4 are present throughout the cytosol, β 2 is present in the nuclei and nucleoplasm, and β 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

α Tubulin (TU-02) is a mouse monoclonal antibody raised against amino acids 1-451 representing full length α Tubulin of porcine origin.

PRODUCT

Each vial contains 200 μ g IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

α Tubulin (TU-02) is available conjugated to agarose (sc-8035 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-8035 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-8035 PE), fluorescein (sc-8035 FITC), Alexa Fluor[®] 488 (sc-8035 AF488), Alexa Fluor[®] 546 (sc-8035 AF546), Alexa Fluor[®] 594 (sc-8035 AF594) or Alexa Fluor[®] 647 (sc-8035 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-8035 AF680) or Alexa Fluor[®] 790 (sc-8035 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, α Tubulin (TU-02) is available conjugated to either TRITC (sc-8035 TRITC, 200 μ g/ml), PerCP (sc-8035 PerCP), PerCP-Cy5.5 (sc-8035 PCPC5) or Alexa Fluor[®] 405 (sc-8035 AF405), 100 tests in 2 ml, for IF, IHC(P) and FCM.

APPLICATIONS

α Tubulin (TU-02) is recommended for detection of α Tubulin of mouse, rat, human and porcine 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)], 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), flow cytometry (1 μ g per 1 x 10⁶ cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of α Tubulin: 55 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, C2C12 whole cell lysate: sc-364188 or NAMALWA cell lysate: sc-2234.

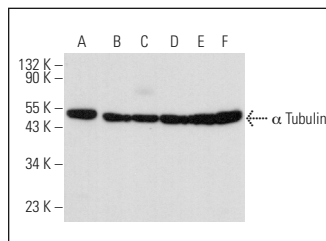
RESEARCH USE

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

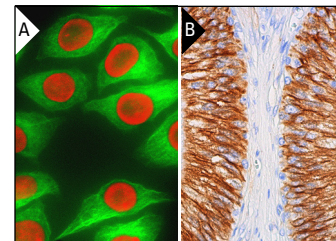
STORAGE

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

DATA



α Tubulin (TU-02): sc-8035. Western blot analysis of α Tubulin expression in NIH/3T3 (A), C2C12 (B), NAMALWA (C), A-673 (D), PC-12 (E) and C6 (F) whole cell lysates.



Lamin A/C (636) PE: sc-7292 PE and α Tubulin (TU-02) Alexa Fluor[®] 488: sc-8035 AF488. Direct immunofluorescence staining of formalin-fixed HeLa cells showing nuclear envelope (red) and cytoskeletal (green) localization (A). α Tubulin (TU-02) HRP: sc-8035 HRP. Direct immunoperoxidase staining of formalin fixed, paraffin-embedded human epididymis tissue showing cytoplasmic and membrane staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Liu, S.H., et al. 1999. Inhibition of inducible nitric oxide synthase by β -lapachone in rat alveolar macrophages and aorta. *Br. J. Pharmacol.* 126: 746-750.
- Kuo, W.L., et al. 2014. p62/SQSTM1 accumulation in squamous cell carcinoma of head and neck predicts sensitivity to phosphatidylinositol 3-kinase pathway inhibitors. *PLoS ONE* 9: e90171.
- Kiebal, M., et al. 2015. Platelet activation in human immunodeficiency virus type-1 patients is not altered with cocaine abuse. *PLoS ONE* 10: e0130061.
- De Santis Puzzon, M., et al. 2016. TGF β induces binucleation/polyplodization in hepatocytes through a Src-dependent cytokinesis failure. *PLoS ONE* 11: e0167158.
- Laporte, A.N., et al. 2017. HDAC and proteasome inhibitors synergize to activate pro-apoptotic factors in synovial sarcoma. *PLoS ONE* 12: e0169407.
- Karnati, S., et al. 2018. PPAR α -mediated peroxisome induction compensates PPAR γ -deficiency in bronchiolar club cells. *PLoS ONE* 13: e0203466.
- García-Roche, M., et al. 2019. Impaired hepatic mitochondrial function during early lactation in dairy cows: association with protein lysine acetylation. *PLoS ONE* 14: e0213780.
- Promchan, K., et al. 2020. Leucine zipper transcription factor-like 1 binds adaptor protein complex-1 and 2 and participates in trafficking of transferrin receptor 1. *PLoS ONE* 15: e0226298.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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