SANTA CRUZ BIOTECHNOLOGY, INC.

acetylated α Tubulin (6-11B-1): sc-23950

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 (β1, β2, β3, β4, β5, β6 and β8) have been characterized and 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 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

acetylated α Tubulin (6-11B-1) is a mouse monoclonal antibody raised against the outer arms of *Strongylocentrotus purpuratus* (sea urchin) sperm axonemes.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

acetylated α Tubulin (6-11B-1) is available conjugated to agarose (sc-23950 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-23950 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-23950 PE), fluorescein (sc-23950 FITC), Alexa Fluor® 488 (sc-23950 AF488), Alexa Fluor® 546 (sc-23950 AF546), Alexa Fluor® 594 (sc-23950 AF594) or Alexa Fluor® 647 (sc-23950 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-23950 AF680) or Alexa Fluor® 790 (sc-23950 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

acetylated α Tubulin (6-11B-1) is recommended for detection of acetylated α Tubulin of mammalian species, zebrafish, *Drosophila* and *Xenopus* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500); non cross-reactive with non-acetylated α Tubulin or other lysine acetylation sites.

Molecular Weight of acetylated α Tubulin: 55 kDa.

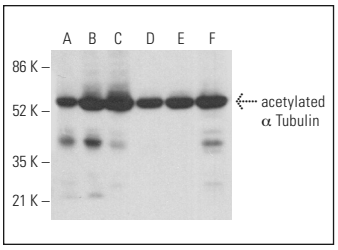
Positive Controls: A2058 whole cell lysate: sc-364178, 3T3-L1 cell lysate: sc-2243 or Jurkat whole cell lysate: sc-2204.

Santa Cruz Biotechnology offers several chemical inducers of acetylation, including: Apicidin (sc-202061), Panobinostat (sc-208148), Suberoylanilide Hydroxamic Acid (sc-220139), Oxamflatin (sc-205960), Ms-275 (sc-279455), M 344 (sc-203124), Scriptaid (sc-202807), Trapoxin A (sc-253730) and Trichostatin A (sc-3511).

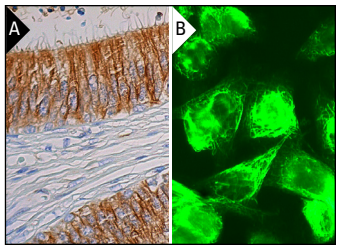
STORAGE

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

DATA



acetylated α Tubulin (6-11B-1): sc-23950. Western blot analysis of acetylated α Tubulin expression in 3T3-L1 (**A**), A2058 (**B**), SJRH30 (**C**), Jurkat (**D**), BC_3H1 (**E**) and Sol8 (**F**) whole cell lysates.



acetylated α Tubulin (6-11B-1): sc-23950. Immunoperoxidase staining of formalin fixed, paraffin-embedded human epididymis tissue showing cytoplasmic and membrane staining of glandular cells (**A**). acetylated α Tubulin (6-11B-1) Alexa Fluor® 488: sc-23950 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing cytoskeletal localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (**B**).

SELECT PRODUCT CITATIONS

1. Tavera-Mendoza, L.E., et al. 2008. Incorporation of histone deacetylase inhibition into the structure of a nuclear receptor agonist. Proc. Natl. Acad. Sci. USA 105: 8250-8255.
2. Cavasin, M.A., et al. 2012. Selective class I histone deacetylase inhibition suppresses hypoxia-induced cardiopulmonary remodeling through an antiproliferative mechanism. Circ. Res. 110: 739-748.
3. Jung, E.J., et al. 2013. Proteomic analysis of novel targets associated with TrkA-mediated tyrosine phosphorylation signaling pathways in SK-N-MC neuroblastoma cells. Proteomics 13: 355-367.
4. Bender, M., et al. 2014. Megakaryocyte-specific Profilin1-deficiency alters microtubule stability and causes a Wiskott-Aldrich syndrome-like platelet defect. Nat. Commun. 5: 4746.
5. Lafkas, D., et al. 2015. Therapeutic antibodies reveal Notch control of transdifferentiation in the adult lung. Nature 528: 127-131.
6. Pan, C.H., et al. 2016. Vorinostat enhances the cisplatin-mediated anti-cancer effects in small cell lung cancer cells. BMC Cancer 16: 857.
7. Nassar, M., et al. 2017. LC3A silencing hinders aggresome vimentin cage clearance in primary choroid plexus carcinoma. Sci. Rep. 7: 8022.
8. Eberl, M., et al. 2018. Tumor architecture and Notch signaling modulate drug response in basal cell carcinoma. Cancer Cell 33: 229-243.e4.
9. Zhang, P., et al. 2019. Microscopy-based automated live cell screening for small molecules that affect ciliation. Front. Genet. 10: 75.
10. Deneka, A.Y., et al. 2020. Synthetic lethal targeting of mitotic checkpoints in HPV-negative head and neck cancer. Cancers 12: 306.

RESEARCH USE

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