α1c Tubulin (h5): 293 Lysate: sc-158211



The Power to Overtio

BACKGROUND

Tubulin exists as five distinct forms, designated α , β , γ , δ and ϵ , all of which function as critical components of the cytoskeleton, specifically forming heterodimers which multimerize to produce microtubule filaments. α 1c Tubulin, also known as TUBA1C or TUBA6, is a 449 amino acid protein that exists as a dimer of α and β chains and belongs to the Tubulin family of cytoskeletal proteins. Like other members of the Tubulin family, α 1c Tubulin exists as a major component of microtubules and functions to bind two moles of GTP, one at a non-exchangeable site on its α chain and one at an exchangeable site on its β chain. α 1c Tubulin is subject to a post-translational tyrosination/detyrosination cycle in which C-terminal tyrosine residues are added and removed by specific enzymes.

REFERENCES

- Watts, N.R., Sackett, D.L., Ward, R.D., Miller, M.W., Wingfield, P.T., Stahl, S.S. and Steven, A.C. 2000. HIV-1 Rev depolymerizes microtubules to form stable bilayered rings. J. Cell Biol. 150: 349-360.
- Rush, J., Moritz, A., Lee, K.A., Guo, A., Goss, V.L., Spek, E.J., Zhang, H., Zha, X.M., Polakiewicz, R.D. and Comb, M.J. 2005. Immunoaffinity profiling of tyrosine phosphorylation in cancer cells. Nat. Biotechnol. 23: 94-101.
- de Mareuil, J., Carre, M., Barbier, P., Campbell, G.R., Lancelot, S., Opi, S., Esquieu, D., Watkins, J.D., Prevot, C., Braguer, D., Peyrot, V. and Loret, E.P. 2005. HIV-1 Tat protein enhances microtubule polymerization. Retrovirology 2: 5
- 4. Giacca, M. 2005. HIV-1 Tat, apoptosis and the mitochondria: a Tubulin link? Retrovirology 2: 7.
- Frum, R., Busby, S.A., Ramamoorthy, M., Deb, S., Shabanowitz, J., Hunt, D.F. and Deb, S.P. 2007. HDM2-binding partners: interaction with translation elongation factor EF1α. J. Proteome Res. 6: 1410-1417.
- Daub, H., Olsen, J.V., Bairlein, M., Gnad, F., Oppermann, F.S., Körner, R., Greff, Z., Kéri, G., Stemmann, O. and Mann, M. 2008. Kinase-selective enrichment enables quantitative phosphoproteomics of the kinome across the cell cycle. Mol. Cell 31: 438-448.
- 7. Dephoure, N., Zhou, C., Villén, J., Beausoleil, S.A., Bakalarski, C.E., Elledge, S.J. and Gygi, S.P. 2008. A quantitative atlas of mitotic phosphorylation. Proc. Natl. Acad. Sci. USA 105: 10762-10767.

CHROMOSOMAL LOCATION

Genetic locus: TUBA1C (human) mapping to 12q13.12.

PRODUCT

 α 1c Tubulin (h5): 293 Lysate represents a lysate of human α 1c Tubulin transfected 293 cells and is provided as 100 μg protein in 200 μl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

lpha1c Tubulin (h5): 293 Lysate is suitable as a Western Blotting positive control for human reactive lpha1c Tubulin antibodies. Recommended use: 10-20 μ 1 per lane

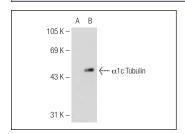
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

 α Tubulin (6A204): sc-69969 is recommended as a positive control antibody for Western Blot analysis of enhanced human α 1c Tubulin expression in α 1c Tubulin transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



 α Tubulin (6A204): sc-69969. Western blot analysis of $\alpha 1\epsilon$ Tubulin expression in non-transfected: sc-110760 (A) and human $\alpha 1\epsilon$ Tubulin transfected: sc-158211 (B) 293 whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com