

α 1c Tubulin (m): 293T Lysate: sc-118104

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

1. 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.
2. 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.
3. 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.
5. 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 EF1 α . *J. Proteome Res.* 6: 1410-1417.
6. 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 (mouse) mapping to 15 F1.

PRODUCT

α 1c Tubulin (m): 293T Lysate represents a lysate of mouse α 1c Tubulin transfected 293T cells and is provided as 100 μ g protein in 200 μ l 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

α 1c Tubulin (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive α 1c Tubulin antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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.