

α1c Tubulin (m2): 293T Lysate: sc-118105

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 (m2): 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.

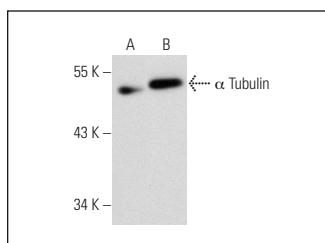
APPLICATIONS

α 1c Tubulin (m2): 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.

α Tubulin (YOL1/34): sc-53030 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse α 1c Tubulin expression in α 1c Tubulin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



α Tubulin (YOL1/34): sc-53030. Western blot analysis of α Tubulin expression in non-transfected: sc-117752 (A) and mouse α Tubulin transfected: sc-118105 (B) 293T 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.