GCP2 (m): 293T Lysate: sc-126898



The Power to Question

BACKGROUND

The γ Tubulin complex is composed of γ Tubulin and the γ Tubulin complex-associated proteins GCP2, GCP3, GCP4, GCP5 and GCP6, all of which are essential components of microtubule organizing centers. γ Tubulin complex components are localized to both the centrosome, where they are involved in microtubule nucleation, and to the cytoplasm, where they exist as soluble complexes that can be recruited to the centrosome as needed. Although the GCP proteins are related, they have distinct roles which contribute to the proper function of the γ Tubulin complex. GCP2 (γ Tubulin complex component 2), also known as TUBGCP2 or SPBC97 (spindle pole body protein Spc97 homolog), is a ubiquitously expressed 902 amino acid protein that localizes to the centrosome and is involved in microtubule nucleation.

REFERENCES

- Murphy, S.M., Urbani, L. and Stearns, T. 1998. The mammalian γ-Tubulin complex contains homologues of the yeast spindle pole body components spc97p and spc98p. J. Cell Biol. 141: 663-674.
- Fava, F., Raynaud-Messina, B., Leung-Tack, J., Mazzolini, L., Li, M., Guillemot, J.C., Cachot, D., Tollon, Y., Ferrara, P. and Wright, M. 1999. Human 76p: A new member of the γ Tubulin-associated protein family. J. Cell Biol. 147: 857-868.
- 3. Hillman, R.T., Green, R.E. and Brenner, S.E. 2004. An unappreciated role for RNA surveillance. Genome Biol. 5: R8.
- 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.
- Delgehyr, N., Sillibourne, J. and Bornens, M. 2005. Microtubule nucleation and anchoring at the centrosome are independent processes linked by Ninein function. J. Cell Sci. 118: 1565-1575.
- Arbildua, J.J., Brunet, J.E., Jameson, D.M., López, M., Nova, E., Lagos, R. and Monasterio, O. 2006. Fluorescence resonance energy transfer and molecular modeling studies on 4',6-diamidino-2-phenylindole (DAPI) complexes with tubulin. Protein Sci. 15: 410-419.
- 7. Stirling, P.C., Cuellar, J., Alfaro, G.A., El Khadali, F., Beh, C.T., Valpuesta, J.M., Melki, R. and Leroux, M.R. 2006. PhLP3 modulates CCT-mediated Actin and tubulin folding via ternary complexes with substrates. J. Biol. Chem. 281: 7012-7021.
- Van Thuan, N., Wakayama, S., Kishigami, S. and Wakayama, T. 2006.
 Donor centrosome regulation of initial spindle formation in mouse somatic cell nuclear transfer: roles of γ Tubulin and nuclear mitotic apparatus protein 1. Biol. Reprod. 74: 777-787.
- Lüders, J., Patel, U.K. and Stearns, T. 2006. GCP-WD is a γ Tubulin targeting factor required for centrosomal and chromatin-mediated microtubule nucleation. Nat. Cell Biol. 8: 137-147.

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.

CHROMOSOMAL LOCATION

Genetic locus: Tubgcp2 (mouse) mapping to 7 F4.

PRODUCT

GCP2 (m): 293T Lysate represents a lysate of mouse GCP2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

GCP2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive GCP2 antibodies. Recommended use: 10-20 µl 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.

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