Midline-2 (h2): 293T Lysate: sc-158731



The Power to Question

BACKGROUND

Midline-2 (midline defect 2, tripartite motif-containing protein 1) is a 715 amino acid protein encoded by the human gene MID2. Midline-2 belongs to the TRIM/RBCC family and contains two B box-type zinc fingers, one B30.2/SPRY domain, one COS domain, one Fibronectin type-III domain and one RING-type zinc finger. Midline-2 is a cytoplasmic protein found as a homodimer or heterodimer with Midline-1. It also interacts with IGBP1 (lymphocyte signaling protein A4). Dimerization is mediated by the tripartite motif, RBCC (RING- and B box-type zinc fingers and coiled-coil domains), and microtubule association is dependent on the C-terminal B30.2 domain. Midline-2 is expressed at low levels in fetal kidney and lung, and in adult prostate, ovary and small intestine.

REFERENCES

- Dal Zotto, L., Quaderi, N.A., Elliott, R., Lingerfelter, P.A., Carrel, L., Valsecchi, V., Montini, E., Yen, C.H., Chapman, V., Kalcheva, I., Arrigo, G., Zuffardi, O., Thomas, S., Willard, H.F., Ballabio, A., Disteche, C.M. and Rugarli, E.I. 1998. The mouse Mid1 gene: implications for the pathogenesis of Opitz syndrome and the evolution of the mammalian pseudoautosomal region. Hum. Mol. Genet. 7: 489-499.
- Schweiger, S., Foerster, J., Lehmann, T., Suckow, V., Muller, Y.A., Walter, G., Davies, T., Porter, H., van Bokhoven, H., Lunt, P.W., Traub, P. and Ropers, H.H. 1999. The Opitz syndrome gene product, MID1, associates with microtubules. Proc. Natl. Acad. Sci. USA 96: 2794-2799.
- Buchner, G., Montini, E., Andolfi, G., Quaderi, N., Cainarca, S., Messali, S., Bassi, M.T., Ballabio, A., Meroni, G. and Franco, B. 1999. MID2, a homologue of the Opitz syndrome gene MID1: similarities in subcellular localization and differences in expression during development. Hum. Mol. Genet. 8: 1397-1407.
- 4. Perry, J., Short, K.M., Romer, J.T., Swift, S., Cox, T.C. and Ashworth, A. 2000. FXY2/MID2, a gene related to the X-linked Opitz syndrome gene FXY/MID1, maps to Xq22 and encodes a FNIII domain-containing protein that associates with microtubules. Genomics 62: 385-394.
- Landry, J.R. and Mager, D.L. 2002. Widely spaced alternative promoters, conserved between human and rodent, control expression of the Opitz syndrome gene MID1. Genomics 80: 499-508.
- 6. Short, K.M., Hopwood, B., Yi, Z. and Cox, T.C. 2002. MID1 and MID2 homo- and heterodimerise to tether the Rapamycin-sensitive PP2A regulatory subunit, α 4, to microtubules: implications for the clinical variability of X-linked Opitz GBBB syndrome and other developmental disorders. BMC Cell Biol. 3: 1.
- 7. Zhang, F., Hatziioannou, T., Perez-Caballero, D., Derse, D. and Bieniasz, P.D. 2006. Antiretroviral potential of human tripartite motif-5 and related proteins. Virology 353: 396-409.

CHROMOSOMAL LOCATION

Genetic locus: MID2 (human) mapping to Xq22.3.

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.

PRODUCT

Midline-2 (h2): 293T Lysate represents a lysate of human Midline-2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

Midline-2 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Midline-2 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.

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