DAZAP1 (m2): 293T Lysate: sc-119662



The Power to Question

BACKGROUND

DAZAP1 (deleted in azoospermia-associated protein 1) is a 407 amino acid RNA-binding protein that interacts with DAZ (deleted in azoospermia), a gene with multiple protein products that are deleted in infertile men. Localized to the nucleus of round spermatids and to the cytoplasm of elongated spermatids, DAZAP1 contains two RNP motifs and is thought to be essential for normal spermatogenesis. Binding of DAZAP1 to DAZ mRNA induces translation of DAZ proteins that are required for germ cell development. When DAZAP1 is phosphorylated, it dissociates from DAZ mRNA and prevents proper protein translation, thereby regulating the expression of DAZ proteins. Additionally, DAZAP1 can fuse to the DNA-binding protein MEF-2D; a fusion that disrupts proper signaling pathways and may, therefore, be involved in leukemogenesis. DAZAP1 is expressed predominately in the testis, with weak expression observed in the thymus, heart, liver, brain and pancreas. Two isoforms of DAZAP1 exist due to alternative splicing events.

REFERENCES

- Tsui, S., et al. 2000. Identification of two novel proteins that interact with germ-cell-specific RNA-binding proteins DAZ and DAZL1. Genomics 65: 266-273.
- Vera, Y., et al. 2002. Deleted in azoospermia associated protein 1 shuttles between nucleus and cytoplasm during normal germ cell maturation. J. Androl. 23: 622-628.
- Dai, T., et al. 2003. Characterization of the mouse DAZAP1 gene encoding an RNA-binding protein that interacts with infertility factors DAZ and DAZL. BMC Genomics 2: 6.
- 4. Prima, V., et al. 2005. Cloning and functional characterization of MEF2D/DAZAP1 and DAZAP1/MEF2D fusion proteins created by a variant t(1;19) (q23;p13.3) in acute lymphoblastic leukemia. Leukemia 19: 806-813.
- Pan, H.A., et al. 2005. Expression patterns of the DAZ-associated protein DAZAP1 in rat and human ovaries. Fertil. Steril. 84: 1089-1094.
- 6. Yang, Y., et al. 2006. DAZ1/DAZ2 cluster deletion mediated by gr/gr recombination per se may not be sufficient for spermatogenesis impairment: a study of Chinese normozoospermic men. Asian J. Androl. 8: 183-187.
- 7. Lin, Y.T. and Yen, P.H. 2006. A novel nucleocytoplasmic shuttling sequence of DAZAP1, a testis-abundant RNA-binding protein. RNA 12: 1486-1493.
- 8. Morton, S., et al. 2006. Phosphorylation of the ARE-binding protein DAZAP1 by ERK 2 induces its dissociation from DAZ. Biochem. J. 399: 265-273.
- Prima, V. and Hunger, S.P. 2007. Cooperative transformation by MEF2D/ DAZAP1 and DAZAP1/MEF2D fusion proteins generated by the variant t(1;19) in acute lymphoblastic leukemia. Leukemia 21: 2470-2475.

CHROMOSOMAL LOCATION

Genetic locus: Dazap1 (mouse) mapping to 10 C1.

PRODUCT

DAZAP1 (m2): 293T Lysate represents a lysate of mouse DAZAP1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

DAZAP1 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive DAZAP1 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.

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.

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.