SANTA CRUZ BIOTECHNOLOGY, INC.

ELYS (m): 293T Lysate: sc-120015

BACKGROUND

ELYS (AT-hook-containing transcription factor 1) is a protein of the nuclear matrix that contains one AT hook DNA-binding domain. ELYS is a dual nucleoporin/kinetochore protein required for nuclear pore assembly and proper cell division. Nuclear pores span the nuclear envelope and act as gated aqueous channels to regulate the transport of macromolecules between the nucleus and cytoplasm, from individual proteins and RNAs to entire viral genomes. The AT-hook near the C-terminus of likely indicates ELYS can function as a transcription factor which may play a specific role in hematopoietic tissues. It also may play a role in early embryo development, as ELYS is critical for the survival of inner cells of the blastocyst.

REFERENCES

1. Kimura, N., Takizawa, M., Okita, K., Natori, O., Igarashi, K., Ueno, M., Nakashima, K., Nobuhisa, I. and Taga, T. 2002. Identification of a novel transcription factor, ELYS, expressed predominantly in mouse foetal haematopoietic tissues. Genes Cells 7: 435-446.
2. Okita, K., Nobuhisa, I., Takizawa, M., Ueno, M., Kimura, N. and Taga, T. 2003. Genomic organization and characterization of the mouse ELYS gene. Biochem. Biophys. Res. Commun. 305: 327-332.
3. Okita, K., Kiyonari, H., Nobuhisa, I., Kimura, N., Aizawa, S. and Taga, T. 2004. Targeted disruption of the mouse ELYS gene results in embryonic death at peri-implantation development. Genes Cells 9: 1083-1091.
4. Rasala, B.A., Orjalo, A.V., Shen, Z., Briggs, S. and Forbes, D.J. 2006. ELYS is a dual nucleoporin/kinetochore protein required for nuclear pore assembly and proper cell division. Proc. Natl. Acad. Sci. USA 103: 17801-17806.
5. Franz, C., Walczak, R., Yavuz, S., Santarella, R., Gentzel, M., Askjaer, P., Galy, V., Hetzer, M., Mattaj, I.W. and Antonin, W. 2007. MEL-28/ELYS is required for the recruitment of nucleoporins to chromatin and postmitotic nuclear pore complex assembly. EMBO Rep. 8: 165-172.
6. Gillespie, P.J., Khoudoli, G.A., Stewart, G., Swedlow, J.R. and Blow, J.J. 2007. ELYS/MEL-.chromatin association coordinates nuclear pore complex assembly and replication licensing. Curr. Biol. 17: 1657-1662.
7. Resendes, K.K., Rasala, B.A. and Forbes, D.J. 2008. Centrin-2 localizes to the vertebrate nuclear pore and plays a role in mRNA and protein export. Mol. Cell. Biol. 28: 1755-1769.

CHROMOSOMAL LOCATION

Genetic locus: Ahctf1 (mouse) mapping to 1 H4.

PRODUCT

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

APPLICATIONS

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