

ZNF394 (h): 293T Lysate: sc-116319

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. As a member of the Krüppel C₂H₂-type zinc-finger protein family, ZNF394 (zinc finger protein 394), also known as zinc finger and SCAN domain-containing protein 14 (ZKSCAN14), is a 561 amino acid transcriptional regulator. ZNF394 localizes to the nucleus and is specifically expressed in heart, skeletal muscle and brain in human adult tissues. ZNF394 contains seven C₂H₂-type zinc fingers, a SCAN domain and a KRAB domain. ZNF394 functions as a transcriptional repressor for the c-Jun transcription factor, suggesting that ZNF394 is a new transcriptional repressor in mitogen-activated protein kinase signaling pathways. Additionally, ZNF394 may play an important role in cell growth and proliferation signaling pathways.

REFERENCES

1. Payre, F. and Vincent, A. 1988. Finger proteins and DNA-specific recognition: distinct patterns of conserved amino acids suggest different evolutionary modes. *FEBS Lett.* 234: 245-250.
2. Berg, J.M. 1988. Proposed structure for the zinc-binding domains from transcription factor IIIA and related proteins. *Proc. Natl. Acad. Sci. USA* 85: 99-102.
3. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. *New Biol.* 2: 363-374.
4. Rosenfeld, R. and Margalit, H. 1993. Zinc fingers: conserved properties that can distinguish between spurious and actual DNA-binding motifs. *J. Biomol. Struct. Dyn.* 11: 557-570.
5. Abrink, M., Aveskogh, M. and Hellman, L. 1995. Isolation of cDNA clones for 42 different Krüppel-related zinc finger proteins expressed in the human monoblast cell line U-937. *DNA Cell Biol.* 14: 125-136.
6. Huang, C., Wang, Y., Li, D., Li, Y., Luo, J., Yuan, W., Ou, Y., Zhu, C., Zhang, Y., Wang, Z., Liu, M. and Wu, X. 2004. Inhibition of transcriptional activities of AP-1 and c-Jun by a new zinc finger protein ZNF394. *Biochem. Biophys. Res. Commun.* 320: 1298-1305.
7. Brayer, K.J., Kulshreshtha, S. and Segal, D.J. 2008. The protein-binding potential of C₂H₂ zinc finger domains. *Cell Biochem. Biophys.* 51: 9-19.
8. Tadepally, H.D., Burger, G. and Aubry, M. 2008. Evolution of C₂H₂-zinc finger genes and subfamilies in mammals: species-specific duplication and loss of clusters, genes and effector domains. *BMC Evol. Biol.* 8: 176.
9. Liu, J. and Stormo, G.D. 2008. Context-dependent DNA recognition code for C₂H₂ zinc-finger transcription factors. *Bioinformatics* 24: 1850-1857.

CHROMOSOMAL LOCATION

Genetic locus: ZNF394 (human) mapping to 7q22.1.

PRODUCT

ZNF394 (h): 293T Lysate represents a lysate of human ZNF394 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

ZNF394 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive ZNF394 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.