

ZNF394 (S-13): sc-132174



The Power to Question

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.

CHROMOSOMAL LOCATION

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

SOURCE

ZNF394 (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ZNF394 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-132174 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZNF394 (S-13) is recommended for detection of ZNF394 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other ZNF family members.

Suitable for use as control antibody for ZNF394 siRNA (h): sc-89763, ZNF394 shRNA Plasmid (h): sc-89763-SH and ZNF394 shRNA (h) Lentiviral Particles: sc-89763-V.

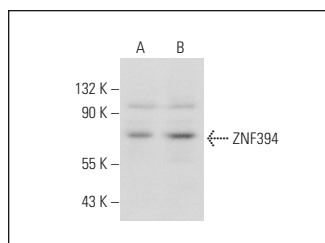
Molecular Weight of ZNF394: 64 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409 or HeLa nuclear extract: sc-2120.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ZNF394 (S-13): sc-132174. Western blot analysis of ZNF394 expression in IMR-32 whole cell lysate (A) and HeLa nuclear extract (B).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. 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 or our catalog for detailed protocols and support products.