

ZNF397 (Y-24): sc-134189

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. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. ZNF397 (zinc finger protein 397), also known as ZNF47 or ZSCAN15, is a 534 amino acid protein belonging to the krueppel C₂H₂-type zinc-finger protein family. Existing as three alternatively spliced isoforms, ZNF397 is expressed strongly in testis, moderately in skeletal muscle, pancreas and prostate, and weakly in heart, placenta, liver, kidney, spleen, thymus and small intestine. ZNF397 isoform 3 acts as a DNA-dependent transcriptional repressor. Isoforms 1 and 3 can both homo- and hetero-associate, however, homo-association of isoform 1 is dependent on the presence of the SCAN domain. ZNF397 contains nine C₂H₂-type zinc fingers and one SCAN box domain.

REFERENCES

1. Kato, N., et al. 1990. Human proviral mRNAs down regulated in choriocarcinoma encode a zinc finger protein related to Krüppel. *Mol. Cell. Biol.* 10: 4401-4405.
2. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. *New Biol.* 2: 363-374.
3. Bray, P., et al. 1991. Characterization and mapping of human genes encoding zinc finger proteins. *Proc. Natl. Acad. Sci. USA* 88: 9563-9567.
4. Huebner, K., et al. 1991. Twenty-seven nonoverlapping zinc finger cDNAs from human T cells map to nine different chromosomes with apparent clustering. *Am. J. Hum. Genet.* 48: 726-740.
5. Lichter, P., et al. 1992. Clustering of C₂H₂ zinc finger motif sequences within telomeric and fragile site regions of human chromosomes. *Genomics* 13: 999-1007.
6. Wu, Y., et al. 2003. Identification and characterization of two novel human SCAN domain-containing zinc finger genes ZNF396 and ZNF397. *Gene* 310: 193-201.

CHROMOSOMAL LOCATION

Genetic locus: ZNF397 (human) mapping to 18q12.2.

SOURCE

ZNF397 (Y-24) is a Protein A purified rabbit polyclonal antibody raised against synthetic ZNF397 peptide of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

ZNF397 (Y-24) is recommended for detection of ZNF397 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ZNF397 siRNA (h): sc-76984, ZNF397 shRNA Plasmid (h): sc-76984-SH and ZNF397 shRNA (h) Lentiviral Particles: sc-76984-V.

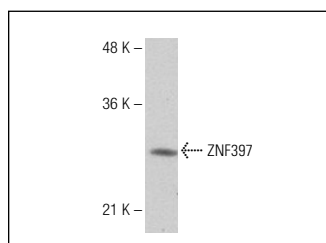
Molecular Weight of ZNF397 isoforms 1/2/3: 61/31/23 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

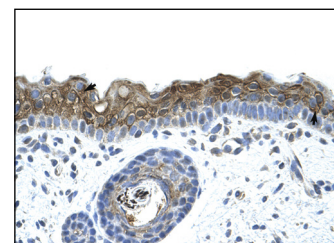
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



ZNF397 (Y-24): sc-134189. Western blot analysis of ZNF397 expression in Hep G2 whole cell lysate.



ZNF397 (Y-24): sc-134189. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human skin tissue showing nuclear and cytoplasmic localization.

RESEARCH USE

For research use only, not for use in diagnostic procedures.