

# ZNF397 (G-12): sc-85233

## 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 C<sub>2</sub>H<sub>2</sub>-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 C<sub>2</sub>H<sub>2</sub>-type zinc fingers and one SCAN box domain.

## REFERENCES

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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.
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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.
7. Englbrecht, C.C., et al. 2004. Conservation, diversification and expansion of C<sub>2</sub>H<sub>2</sub> zinc finger proteins in the *Arabidopsis thaliana* genome. *BMC Genomics* 5: 39-39.
8. Wali, A., et al. 2007. Mapping of a gene for alopecia with mental retardation syndrome (APMR3) on chromosome 18q11.2-q12.2. *Ann. Hum. Genet.* 71 (Pt 5): 570-577.
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## CHROMOSOMAL LOCATION

Genetic locus: ZNF397 (human) mapping to 18q12.2; Zfp397 (mouse) mapping to 18 A2.

## RESEARCH USE

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

## SOURCE

ZNF397 (G-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of ZNF397 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-85233 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-85233 X, 100 µg/0.1 ml.

## APPLICATIONS

ZNF397 (G-12) is recommended for detection of ZNF397 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 ZNF397 siRNA (h): sc-76984, ZNF397 siRNA (m): sc-155708, ZNF397 shRNA Plasmid (h): sc-76984-SH, ZNF397 shRNA Plasmid (m): sc-155708-SH, ZNF397 shRNA (h) Lentiviral Particles: sc-76984-V and ZNF397 shRNA (m) Lentiviral Particles: sc-155708-V.

ZNF397 (G-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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

## 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) 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.