SANTA CRUZ BIOTECHNOLOGY, INC.

ZCCHC6 (N-12): sc-137947

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. ZCCHC6 (zinc finger, CCHC domain containing 6), also known as TUTase 7 (terminal uridylyltransferase 7), PAPD6 (PAP associated domain containing 6) or HS2, is a 1,495 amino acid uridylyltransferase that mediates RNA uridylation. A member of the DNA polymerase type-B-like family, ZCCHC6 contains three CCHC-type zinc fingers and two PAP-associated domains, and exists as six alternatively spliced isoforms. The gene encoding ZCCHC6 maps to human chromosome 9q21.33 and mouse chromosome 13 B2.

REFERENCES

1. Bray, P., et al. 1991. Characterization and mapping of human genes encoding zinc finger proteins. Proc. Natl. Acad. Sci. USA 88: 9563-9567.
2. Lichter, P., et al. 1992. Clustering of C_2-H_2 zinc-finger motif sequences within telomeric and fragile site regions of human chromosomes. Genomics 13: 999-1007.
3. Urrutia, R. 2003. KRAB-containing zinc-finger repressor proteins. Genome Biol. 4: 231.
4. Huntley, S., et al. 2006. A comprehensive catalog of human KRAB-associated zinc-finger genes: insights into the evolutionary history of a large family of transcriptional repressors. Genome Res. 16: 669-677.
5. Filion, G.J., et al. 2006. A family of human zinc-finger proteins that bind methylated DNA and repress transcription. Mol. Cell. Biol. 26: 169-181.
6. Rissland, O.S., et al. 2007. Efficient RNA poly-uridylation by noncanonical poly(A) polymerases. Mol. Cell. Biol. 27: 3612-3624.
7. Mullen, T.E., et al. 2008. Degradation of histone mRNA requires oligouridylation followed by decapping and simultaneous degradation of the mRNA both 5' to 3' and 3' to 5'. Genes Dev. 22: 50-65.
8. Heo, I., et al. 2009. TUT4 in concert with Lin28 suppresses microRNA biogenesis through pre-microRNA uridylation. Cell 138: 696-708.

CHROMOSOMAL LOCATION

Genetic locus: ZCCHC6 (human) mapping to 9q21.33; Zcchc6 (mouse) mapping to 13 B2.

SOURCE

ZCCHC6 (N-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of ZCCHC6 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-137947 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ZCCHC6 (N-12) is recommended for detection of ZCCHC6 isoforms 1-6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other ZCCHC family members.

Suitable for use as control antibody for ZCCHC6 siRNA (h): sc-92875, ZCCHC6 siRNA (m): sc-155482, ZCCHC6 shRNA Plasmid (h): sc-92875-SH, ZCCHC6 shRNA Plasmid (m): sc-155482-SH, ZCCHC6 shRNA (h) Lentiviral Particles: sc-92875-V and ZCCHC6 shRNA (m) Lentiviral Particles: sc-155482-V.

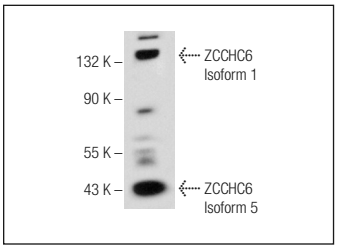
Molecular Weight of ZCCHC6 isoforms: 171/70/62/145/48/167 kDa.

Positive Control: Human prostate tissue extract.

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.

DATA



ZCCHC6 (N-12): sc-137947. Western blot analysis of ZCCHC6 expression in human prostate tissue extract.

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.