

THAP7 (Q-19): sc-86909

BACKGROUND

THAP7 (THAP domain-containing protein 7) is a 309 amino acid protein belonging to the Thanatos-associated protein family. Ubiquitously expressed, with highest expression in testis, THAP7 contains one THAP domain, an approximately 90 amino acid residue domain which includes a C₂CH signature, an AVPTIF box and several other conserved amino acids. In the nucleus, THAP7 associates with chromatin and binds preferentially to hypoacetylated (un-, mono- and diacetylated) Histones H3 and H4 through the C-terminal tail. In addition, THAP7 represses transcription by recruiting HDAC3 and N-CoR to promoters to deacetylate Histone H3. The gene encoding human THAP7 is localized to chromosome 22q11.2.

REFERENCES

1. Jones, P.L. and Shi, Y.B. 2003. N-CoR-HDAC corepressor complexes: roles in transcriptional regulation by nuclear hormone receptors. *Curr. Top. Microbiol. Immunol.* 274: 237-268.
2. Roussigne, M., Kossida, S., Lavigne, A.C., Clouaire, T., Ecochard, V., Glories, A., Amalric, F. and Girard, J.P. 2003. The THAP domain: a novel protein motif with similarity to the DNA-binding domain of P element transposase. *Trends Biochem. Sci.* 28: 66-69.
3. Macfarlan, T., Kutney, S., Altman, B., Montross, R., Yu, J. and Chakravarti, D. 2005. Human THAP7 is a chromatin-associated, histone tail-binding protein that represses transcription via recruitment of HDAC3 and nuclear hormone receptor corepressor. *J. Biol. Chem.* 280: 7346-7358.
4. Clouaire, T., Roussigne, M., Ecochard, V., Mathe, C., Amalric, F. and Girard, J.P. 2005. The THAP domain of THAP1 is a large C₂CH module with zinc-dependent sequence-specific DNA-binding activity. *Proc. Natl. Acad. Sci. USA* 102: 6907-6912.

CHROMOSOMAL LOCATION

Genetic locus: THAP7 (human) mapping to 22q11.21; Thap7 (mouse) mapping to 16 A3.

SOURCE

THAP7 (Q-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of THAP7 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-86909 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-86909 X, 100 µg/0.1 ml.

STORAGE

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

APPLICATIONS

THAP7 (Q-19) is recommended for detection of THAP7 of mouse, rat and 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 THAP1.

THAP7 (Q-19) is also recommended for detection of THAP7 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for THAP7 siRNA (h): sc-76651, THAP7 siRNA (m): sc-154250, THAP7 shRNA Plasmid (h): sc-76651-SH, THAP7 shRNA Plasmid (m): sc-154250-SH, THAP7 shRNA (h) Lentiviral Particles: sc-76651-V and THAP7 shRNA (m) Lentiviral Particles: sc-154250-V.

THAP7 (Q-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

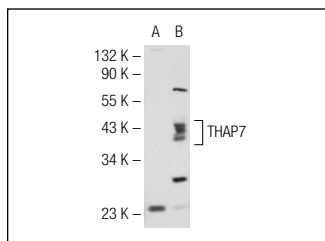
Molecular Weight of THAP7: 34 kDa.

Positive Controls: THAP7 (m): 293T Lysate: sc-124033 or K-562 whole cell lysate: sc-2203.

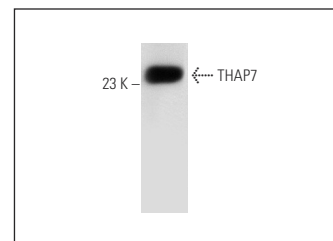
RECOMMENDED SECONDARY REAGENTS

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



THAP7 (Q-19): sc-86909. Western blot analysis of THAP7 expression in non-transfected: sc-117752 (A) and mouse THAP7 transfected: sc-124033 (B) 293T whole cell lysates.



THAP7 (Q-19): sc-86909. Western blot analysis of THAP7 expression in K-562 whole cell lysate.

RESEARCH USE

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