

# THAP7 (F-7): sc-515496



The Power to Question

## 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 22q11.21.

## 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., et al. 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., et al. 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

THAP7 (F-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 40-65 within an internal region of THAP7 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-515496 X, 200 µg/0.1 ml.

THAP7 (F-7) is available conjugated to agarose (sc-515496 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515496 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515496 PE), fluorescein (sc-515496 FITC), Alexa Fluor® 488 (sc-515496 AF488), Alexa Fluor® 546 (sc-515496 AF546), Alexa Fluor® 594 (sc-515496 AF594) or Alexa Fluor® 647 (sc-515496 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515496 AF680) or Alexa Fluor® 790 (sc-515496 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515496 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

THAP7 (F-7) is recommended for detection of THAP7 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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 (F-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

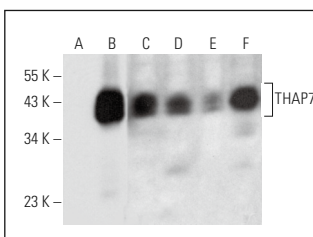
Molecular Weight of THAP7: 34 kDa.

Positive Controls: THAP7 (m): 293T Lysate: sc-124033, K-562 whole cell lysate: sc-2203 or Jurkat whole cell lysate: sc-2204.

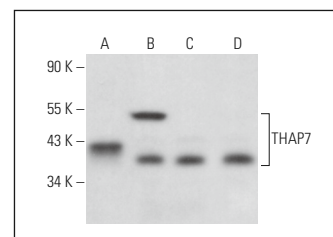
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



THAP7 (F-7): sc-515496. Western blot analysis of THAP7 expression in non-transfected 293T: sc-117752 (A), mouse THAP7 transfected 293T: sc-124033 (B), K-562 (C), HeLa (D), HEK293T (E) and Jurkat (F) whole cell lysates.



THAP7 (F-7): sc-515496. Western blot analysis of THAP7 expression in HL-60 (A), Neuro-2A (B), WR19L (C) and WEHI-231 (D) whole cell lysates.

## 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.