

# THOC3 (B-7): sc-377067



The Power to Question

## BACKGROUND

WD-repeats are motifs that are found in a variety of proteins and are characterized by a conserved core of 40-60 amino acids that commonly form a tertiary propeller structure. While proteins that contain WD-repeats participate in a wide range of cellular functions, they are generally involved in regulatory mechanisms concerning chromatin assembly, cell cycle control, signal transduction, RNA processing, apoptosis and vesicular trafficking. THOC3 (THO complex subunit 3), also known as TEX1, is a 351 amino acid protein that localized to the nucleus and contains six WD repeats. Existing as a component of the heteromultimeric THO/TREX (transcription/export) complex, THOC3 plays a role in the coupling of Pol II elongation with RNA splicing and export factors, thereby participating in transcription and RNA export.

## REFERENCES

1. van der Voorn, L. and Ploegh, H.L. 1992. The WD-40 repeat. *FEBS Lett.* 307: 131-134.
2. Neer, E.J., et al. 1994. The ancient regulatory-protein family of WD-repeat proteins. *Nature* 371: 297-300.
3. Smith, T.F., et al. 1999. The WD repeat: a common architecture for diverse functions. *Trends Biochem. Sci.* 24: 181-185.
4. Strässer, K., et al. 2002. TREX is a conserved complex coupling transcription with messenger RNA export. *Nature* 417: 304-308.
5. Rehwinkel, J., et al. 2004. Genome-wide analysis of mRNAs regulated by the THO complex in *Drosophila melanogaster*. *Nat. Struct. Mol. Biol.* 11: 558-566.
6. Masuda, S., et al. 2005. Recruitment of the human TREX complex to mRNA during splicing. *Genes Dev.* 19: 1512-1517.
7. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 606929. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: THOC3 (human) mapping to 5q35.2; Thoc3 (mouse) mapping to 13 B1.

## SOURCE

THOC3 (B-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 11-49 near the N-terminus of THOC3 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-377067 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-377067 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

THOC3 (B-7) is recommended for detection of THOC3 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 THOC3 siRNA (h): sc-63125, THOC3 siRNA (m): sc-63126, THOC3 shRNA Plasmid (h): sc-63125-SH, THOC3 shRNA Plasmid (m): sc-63126-SH, THOC3 shRNA (h) Lentiviral Particles: sc-63125-V and THOC3 shRNA (m) Lentiviral Particles: sc-63126-V.

THOC3 (B-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

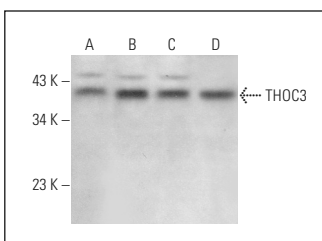
Molecular Weight of THOC3: 39 kDa.

Positive Controls: LADMAC whole cell lysate: sc-364189, HEL 92.1.7 cell lysate: sc-2270 or K-562 whole cell lysate: sc-2203.

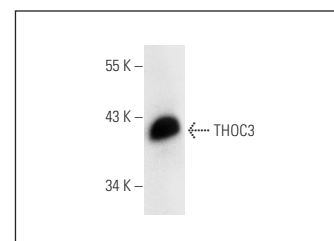
## RECOMMENDED SUPPORT REAGENTS

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



THOC3 (B-7): sc-377067. Western blot analysis of THOC3 expression in HEL 92.1.7 (A), K-562 (B), TF-1 (C) and NIH/3T3 (D) whole cell lysates.



THOC3 (B-7): sc-377067. Western blot analysis of THOC3 expression in LADMAC whole cell lysate.

## 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.