

THOC3 (Z-22): sc-134087

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., Schmidt, C.J., Nambudripad, R. and Smith, T.F. 1994. The ancient regulatory-protein family of WD-repeat proteins. *Nature* 371: 297-300.
3. Smith, T.F., Gaitatzes, C., Saxena, K. and Neer, E.J. 1999. The WD repeat: a common architecture for diverse functions. *Trends Biochem. Sci.* 24: 181-185.
4. Strässer, K., Masuda, S., Mason, P., Pfannstiel, J., Oppizzi, M., Rodriguez-Navarro, S., Rondón, A.G., Aguilera, A., Struhl, K., Reed, R. and Hurt, E. 2002. TREX is a conserved complex coupling transcription with messenger RNA export. *Nature* 417: 304-308.
5. Rehwinkel, J., Herold, A., Gari, K., Köcher, T., Rode, M., Ciccarelli, F.L., Wilm, M. and Izaurralde, E. 2004. Genome-wide analysis of mRNAs regulated by the THO complex in *Drosophila melanogaster*. *Nat. Struct. Mol. Biol.* 11: 558-566.
6. Masuda, S., Das, R., Cheng, H., Hurt, E., Dorman, N. and Reed, R. 2005. Recruitment of the human TREX complex to mRNA during splicing. *Genes Dev.* 19: 1512-1517.

CHROMOSOMAL LOCATION

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

SOURCE

THOC3 (Z-22) is a Protein A purified rabbit polyclonal antibody raised against synthetic THOC3 peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

APPLICATIONS

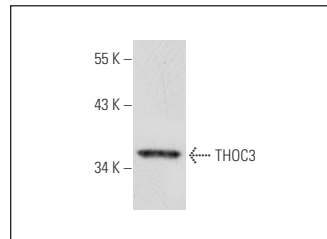
THOC3 (Z-22) is recommended for detection of THOC3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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.

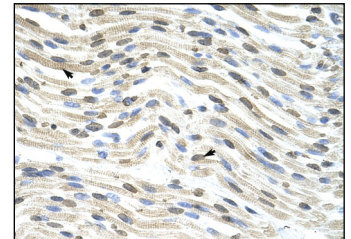
Molecular Weight of THOC3: 39 kDa.

Positive Controls: THOC3 (h): 293 Lysate: sc-110698: sc-2227 or LADMAC whole cell lysate sc-364189.

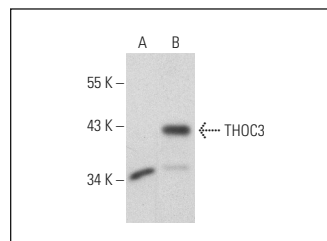
DATA



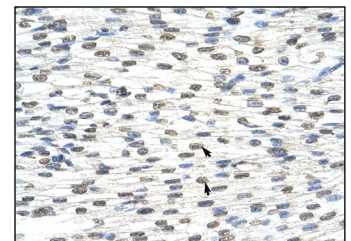
THOC3 (Z-22): sc-134087. Western blot analysis of THOC3 expression in LADMAC whole cell lysate.



THOC3 (Z-22): sc-134087. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human heart tissue showing nuclear and cytoplasmic localization.



THOC3 (Z-22): sc-134087. Western blot analysis of THOC3 expression in non-transfected: sc-110760 (A) and human THOC3 transfected: sc-110698 (B) 293 whole cell lysates.



THOC3 (Z-22): sc-134087. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human heart tissue showing nuclear localization.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **THOC3 (A-9): sc-377456** or **THOC3 (B-7): sc-377067**, our highly recommended monoclonal alternatives to THOC3 (Z-22).