

THOC6 (B-3): sc-390722

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. THOC6 (THO complex 6 homolog), also known as WDR58 (WD-repeat-containing protein 58) is a 341 amino acid protein that contains seven WD-repeats and belongs to the WD-repeat THOC6 family. THOC6 is a component of the THO/TREX complex that is recruited to transcribed genes and travels along with RNA polymerase II (Pol II) during elongation, coupling elongating Pol II with RNA splicing and export factors. Multiple isoforms of THOC6 exist due to alternative splicing events.

REFERENCES

1. van der Voorn, L., et al. 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. Garcia-Higuera, I., et al. 1996. Folding of proteins with WD-repeats: comparison of six members of the WD-repeat superfamily to the G protein β subunit. *Biochemistry* 35: 13985-13994.
4. Garcia-Higuera, I., et al. 1998. Folding a WD repeat propeller. Role of highly conserved aspartic acid residues in the G protein β subunit and Sec13. *J. Biol. Chem.* 273: 9041-9049.
5. Smith, T.F., et al. 1999. The WD repeat: a common architecture for diverse functions. *Trends Biochem. Sci.* 24: 181-185.

CHROMOSOMAL LOCATION

Genetic locus: THOC6 (human) mapping to 16p13.3; Thoc6 (mouse) mapping to 17 A3.3.

SOURCE

THOC6 (B-3) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of THOC6 of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

THOC6 (B-3) is available conjugated to agarose (sc-390722 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390722 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390722 PE), fluorescein (sc-390722 FITC), Alexa Fluor[®] 488 (sc-390722 AF488), Alexa Fluor[®] 546 (sc-390722 AF546), Alexa Fluor[®] 594 (sc-390722 AF594) or Alexa Fluor[®] 647 (sc-390722 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390722 AF680) or Alexa Fluor[®] 790 (sc-390722 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

THOC6 (B-3) is recommended for detection of THOC6 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 THOC6 siRNA (h): sc-76656, THOC6 siRNA (m): sc-76657, THOC6 shRNA Plasmid (h): sc-76656-SH, THOC6 shRNA Plasmid (m): sc-76657-SH, THOC6 shRNA (h) Lentiviral Particles: sc-76656-V and THOC6 shRNA (m) Lentiviral Particles: sc-76657-V.

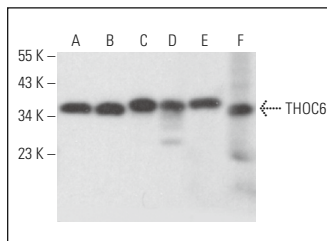
Molecular Weight of THOC6: 38 kDa.

Positive Controls: PC-12 cell lysate: sc-2250, NIH/3T3 whole cell lysate: sc-2210 or Jurkat whole cell lysate: sc-2204.

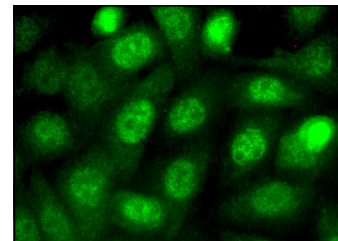
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



THOC6 (B-3): sc-390722. Western blot analysis of THOC6 expression in PC-12 (A), NIH/3T3 (B), Jurkat (C), OVCAR-3 (D) and MTE1D (E) whole cell lysates and mouse bone marrow tissue extract (F).



THOC6 (B-3): sc-390722. Immunofluorescence staining of formalin-fixed SW480 cells showing nuclear localization.

SELECT PRODUCT CITATIONS

1. Kliza, K.W., et al. 2021. Reading ADP-ribosylation signaling using chemical biology and interaction proteomics. *Mol. Cell* 81: 4552-4567.e8.

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.