

THOC2 (N-20): sc-68841

BACKGROUND

THOC2 (THO complex subunit 2), also known as Tho2, is a 1,478 amino acid nuclear protein that functions as a component of the heteromultimeric THO/TREX (transcription/export) complex, a multi-protein structure consisting of THOC1, THOC2, THOC3, BAT1 and ALY. The THO/TREX complex is recruited to transcribed genes and travels with RNA polymerase II (Pol II) during elongation, coupling elongating Pol II with RNA splicing and export factors. Defects in the protein components of the TREX structure can cause transcription impairment, mRNA export defects and transcription-associated recombination. THOC2, an important component of the TREX complex, exists as two isoforms that are produced by alternative splicing events.

REFERENCES

- Coffey, A.J., Brooksbank, R.A., Brandau, O., Oohashi, T., Howell, G.R., Bye, J.M., Cahn, A.P., Durham, J., Heath, P., Wray, P., Pavitt, R., Wilkinson, J., Leversha, M., Huckle, E., Shaw-Smith, C.J., Dunham, A., et al. 1998. Host response to EBV infection in X-linked lymphoproliferative disease results from mutations in an SH2-domain encoding gene. *Nat. Genet.* 20: 129-135.
- 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.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300395. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: THOC2 (human) mapping to Xq25; Thoc2 (mouse) mapping to X A4.

SOURCE

THOC2 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of THOC2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-68841 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-68841 X, 200 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.

RESEARCH USE

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

APPLICATIONS

THOC2 (N-20) is recommended for detection of THOC2 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).

THOC2 (N-20) is also recommended for detection of THOC2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for THOC2 siRNA (h): sc-76654, THOC2 siRNA (m): sc-76655, THOC2 shRNA Plasmid (h): sc-76654-SH, THOC2 shRNA Plasmid (m): sc-76655-SH, THOC2 shRNA (h) Lentiviral Particles: sc-76654-V and THOC2 shRNA (m) Lentiviral Particles: sc-76655-V.

THOC2 (N-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

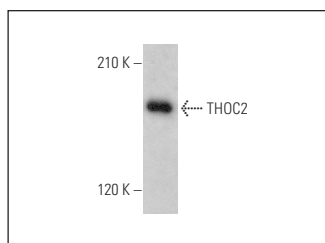
Molecular Weight of THOC2: 180 kDa.

Positive Controls: mouse placenta extract: sc-364247.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



THOC2 (N-20): sc-68841. Western blot analysis of THOC2 expression in mouse placenta tissue extract.

SELECT PRODUCT CITATIONS

- Lopitz-Otsoa, F., Rodriguez-Suarez, E., Aillet, F., Casado-Vela, J., Lang, V., Matthiesen, R., Elortza, F. and Rodriguez, M.S. 2012. Integrative analysis of the ubiquitin proteome isolated using tandem ubiquitin binding entities (TUBEs). *J. Proteomics* 75: 2998-3014.