

# TCEA3 (C-7): sc-365894



The Power to Question

## BACKGROUND

TCEA3 (transcription elongation factor A (SII) protein 3), also known as TFIIS.h, is a member of the TFS-II family. Transcription elongation factors of the TFS-II family are responsible for releasing RNA polymerase II (Pol II) from transcriptional arrest. DNA arresting sites can result in locked ternary complexes if elongating RNA polymerases are trapped. Transcription elongation factors function to activate the intrinsic RNA cleavage activity of RNA polymerases. This allows the RNA polymerase to cleave the nascent transcript, thereby forming a new 3'-terminus to resume elongation. TCEA3 is a 348 amino acid protein and it contains one TFIIS N-terminal domain, one TFIIS central domain and one TFIIS-type zinc finger. TCEA3 localizes to the nucleus and binds to Pol II, functioning to assist its transcription elongation past arresting sites.

## REFERENCES

- Gu, W., et al. 1995. Variation in the size of nascent RNA cleavage products as a function of transcript length and elongation competence. *J. Biol. Chem.* 270: 30441-30447.
- Labhart, P., et al. 1998. Identification of novel genes encoding transcription elongation factor TFIIS (TCEA) in vertebrates: conservation of three distinct TFIIS isoforms in frog, mouse, and human. *Genomics* 52: 278-288.
- Wind, M., et al. 2000. Transcription elongation factor SII. *Bioessays* 22: 327-336.

## CHROMOSOMAL LOCATION

Genetic locus: TCEA3 (human) mapping to 1p36.12; Tcea3 (mouse) mapping to 4 D3.

## SOURCE

TCEA3 (C-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 307-334 at the C-terminus of TCEA3 of rat 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-365894 X, 200 µg/0.1 ml.

TCEA3 (C-7) is available conjugated to agarose (sc-365894 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365894 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365894 PE), fluorescein (sc-365894 FITC), Alexa Fluor® 488 (sc-365894 AF488), Alexa Fluor® 546 (sc-365894 AF546), Alexa Fluor® 594 (sc-365894 AF594) or Alexa Fluor® 647 (sc-365894 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365894 AF680) or Alexa Fluor® 790 (sc-365894 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365894 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

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

## APPLICATIONS

TCEA3 (C-7) is recommended for detection of TCEA3 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).

TCEA3 (C-7) is also recommended for detection of TCEA3 in additional species, including canine, bovine and porcine.

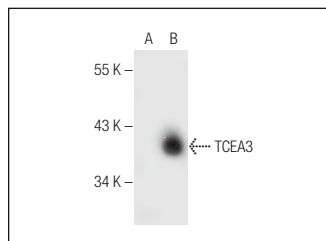
Suitable for use as control antibody for TCEA3 siRNA (h): sc-63111, TCEA3 siRNA (m): sc-63112, TCEA3 shRNA Plasmid (h): sc-63111-SH, TCEA3 shRNA Plasmid (m): sc-63112-SH, TCEA3 shRNA (h) Lentiviral Particles: sc-63111-V and TCEA3 shRNA (m) Lentiviral Particles: sc-63112-V.

TCEA3 (C-7) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TCEA3: 39 kDa.

Positive Controls: NIH/3T3 nuclear extract: sc-2138 or TCEA3 (m): 293T Lysate: sc-126083.

## DATA



TCEA3 (C-7): sc-365894. Western blot analysis of TCEA3 expression in non-transfected: sc-117752 (A) and mouse TCEA3 transfected: sc-126083 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Guo, Y., et al. 2023. Identify Tcea3 as a novel anti-cardiomyocyte hypertrophy gene involved in fatty acid oxidation and oxidative stress. *Front. Cardiovasc. Med.* 10: 1137429.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

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