# SANTA CRUZ BIOTECHNOLOGY, INC.

# TEF-4 (404C5a): sc-81397



BACKGROUND

The transcriptional enhancer factor (TEF)/TEAD family includes TEF-1, TEF-3, TEF-4 and TEF-5. These proteins share a highly conserved 68 amino acid TEA/ATTS DNA-binding domain, which binds to SV40 GT-IIC (GGAATG), SphI (AGTATG), SphII (AGCATG) and muscle-specific M-CAT (GGTATG) enhansons. TEFs are differentially expressed in human cultured cell lines and mouse embryonic and extra-embryonic tissues. Specifically, TEF-4 is strongly co-expressed with TEF-1 in mouse mitotic neuroblasts and is also detected in the gut and the nephrogenic region of the kidney. TEF-4 associates with the powerful transcriptional coactivator YAP65 to mediate mitogenic signals. In addition, TEF-4 promotes the activation of the CTP:phosphocholine cytidylyl-transferase (CCT)  $\alpha$  protein, which is the rate-limiting enzyme of phosphatidyl-choline biosynthesis, by enhancing the transcriptional activity of Ets-1.

#### REFERENCES

- 1. Jacquemin, P., et al. 1996. A novel family of developmentally regulated mammalian transcription factors containing the TEA/ATTS DNA binding domain. J. Biol. Chem. 271: 21775-21785.
- 2. Jacquemin, P., et al. 1999. Localization of human transcription factor TEF-4 and TEF-5 (TEAD2, TEAD3) genes to chromosomes 19q13.3 and 6p21.2 using fluorescence *in situ* hybridization and radiation hybrid analysis. Genomics 55: 127-129.
- 3. Jiang, S.W., et al. 2000. Cooperative binding of TEF-1 to repeated GGAATG-related consensus elements with restricted spatial separation and orientation. DNA Cell Biol. 19: 507-514.
- 4. Sugimoto, H., et al. 2001. Identification of transcriptional enhancer factor-4 as a transcriptional modulator of CTP:phosphocholine cytidylyltransferase  $\alpha$ . J. Biol. Chem. 276: 12338-12344.
- Vassilev, A., et al. 2001. TEAD/TEF transcription factors utilize the activation domain of YAP65, a Src/Yes-associated protein localized in the cytoplasm. Genes Dev. 15: 1229-1241.
- 6. Sugimoto, H., et al. 2003. Identification of Ets-1 as an important transcriptional activator of CTP: phosphocholine cytidylyltransferase  $\alpha$  in COS-7 cells and co-activation with transcriptional enhancer factor-4. J. Biol. Chem. 278: 19716-19722.

## **CHROMOSOMAL LOCATION**

Genetic locus: TEAD2 (human) mapping to 19q13.33.

## SOURCE

TEF-4 (404C5a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to a region near the N-terminus of TEF-4 of human origin.

## **STORAGE**

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/ thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

## PRODUCT

Each vial contains 100  $\mu g~lgG_1$  in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% stabilizer protein.

## **APPLICATIONS**

TEF-4 (404C5a) is recommended for detection of TEF-4 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for TEF-4 siRNA (h): sc-45232, TEF-4 shRNA Plasmid (h): sc-45232-SH and TEF-4 shRNA (h) Lentiviral Particles: sc-45232-V.

Molecular Weight of TEF-4: 49 kDa.

Positive Controls: IMR-32 nuclear extract: sc-2148 or HEK293T whole cell lysate: sc-45137.

## DATA





TEF-4 (404C5a): sc-81397. Western blot analysis of TEF-4 expression in HEK293T whole cell lysate (**A**) and IMR-32 nuclear extract (**B**). TEF-4 (404C5a): sc-81397. Western blot analysis of TEF-4 expression in IMR-32 nuclear extract.

#### **SELECT PRODUCT CITATIONS**

- Liu, S.S., et al. 2023. LncRNA UCA1 participates in de novo synthesis of guanine nucleotides in bladder cancer by recruiting TWIST1 to increase IMPDH1/2. Int. J. Biol. Sci. 19: 2599-2612.
- Patrick, S., et al. 2023. Reduced YAP1 and FOLR1 in gliomas predict better response to chemotherapeutics. Cell. Signal. 109: 110738.

#### **RESEARCH USE**

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

## **PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.