

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) enhancers. 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 cytidyltransferase (CCT) α protein, which is the rate-limiting enzyme of phosphatidylcholine biosynthesis, by enhancing the transcriptional activity of Ets-1.

REFERENCES

- 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.
- 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.
- 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.
- Sugimoto, H., et al. 2001. Identification of transcriptional enhancer factor-4 as a transcriptional modulator of CTP:phosphocholine cytidyltransferase α . *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.
- Sugimoto, H., et al. 2003. Identification of Ets-1 as an important transcriptional activator of CTP: phosphocholine cytidyltransferase α 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 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% stabilizer protein.

APPLICATIONS

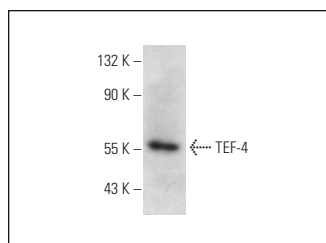
TEF-4 (404C5a) is recommended for detection of TEF-4 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

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.

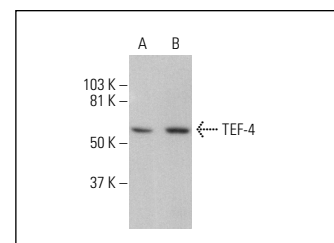
Molecular Weight of TEF-4: 49 kDa.

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 IMR-32 nuclear extract.



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

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.