TEF-5 (Q-14): sc-132465



The Power to Question

BACKGROUND

The transcriptional enhancer factor (TEF)/TEAD family of proteins includes TEF-1, TEF-3, TEF-4 and TEF-5, all of which share a highly conserved 68 amino acid TEA/ATTS DNA-binding domain. TEF-5 (Transcriptional enhancer factor-5), also known as TEAD3, TEAD5, DTEF-1 or ETFR-1, is a 435 amino acid nuclear protein that contains one TEA DNA-binding domain and belongs to the TEF transcriptional enhancer family. Expressed predominately in placental tissue and skeletal muscle, TEF-5 binds to multiple sites in the promotor of Placental lactogen II (also known as chorionic somatomammotropin-B) and, via this binding, enhances Placental lactogen II transcription. Due to its ability to enhance the expression of placenta-related genes, TEF-5 is thought to function as an important regulatory protein within the human placenta.

REFERENCES

- 1. Yasunami, M., et al. 1996. A novel family of TEA domain-containing transcription factors with distinct spatiotemporal expression patterns. Biochem. Biophys. Res. Commun. 228: 365-370.
- Azakie, A., et al. 1996. DTEF-1, a novel member of the transcription enhancer factor-1 (TEF-1) multigene family. J. Biol. Chem. 271: 8260-8265.
- Jacquemin, P., et al. 1997. Human TEF-5 is preferentially expressed in placenta and binds to multiple functional elements of the human chorionic somatomammotropin-B gene enhancer. J. Biol. Chem. 272: 12928-12937.
- 4. Jacquemin, P., et al. 1998. Differential expression of the TEF family of transcription factors in the murine placenta and during differentiation of primary human trophoblasts *in vitro*. Dev. Dyn. 212: 423-436.
- Jiang, S.W., et al. 1999. Human placental TEF-5 transactivates the human chorionic somatomammotropin gene enhancer. Mol. Endocrinol. 13: 879-889.
- Maeda, T., et al. 2002. TEF-1 transcription factors regulate activity of the mouse mammary tumor virus LTR. Biochem. Biophys. Res. Commun. 296: 1279-1285.
- 7. Maeda, T., et al. 2002. Mouse DTEF-1 (ETFR-1, TEF-5) is a transcriptional activator in α 1-adrenergic agonist-stimulated cardiac myocytes. J. Biol. Chem. 277: 24346-24352.
- 8. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 603170. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Peng, L., et al. 2004. Transcription enhancer factor-5 and a GATA-like protein determine placental-specific expression of the Type I human 3β-hydroxysteroid dehydrogenase gene, HSD3B1. Mol. Endocrinol. 18: 2049-2060.

CHROMOSOMAL LOCATION

Genetic locus: TEAD3 (human) mapping to 6p21.31; Tead3 (mouse) mapping to 17 A3.3.

SOURCE

TEF-5 (Q-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TEF-5 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-132465 P, (100 μ g 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-132465 X, 200 μ g/0.1 ml.

APPLICATIONS

TEF-5 (Q-14) is recommended for detection of TEF-5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other TEF family members.

TEF-5 (Q-14) is also recommended for detection of TEF-5 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for TEF-5 siRNA (h): sc-95636, TEF-5 siRNA (m): sc-154180, TEF-5 shRNA Plasmid (h): sc-95636-SH, TEF-5 shRNA Plasmid (m): sc-154180-SH, TEF-5 shRNA (h) Lentiviral Particles: sc-95636-V and TEF-5 shRNA (m) Lentiviral Particles: sc-154180-V.

TEF-5 (Q-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TEF-5: 53 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

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) 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.

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.

PROTOCOLS

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**