

TEF-1 (H-41): sc-292514



The Power to Question

BACKGROUND

A member of the TEA/ATTS domain family, transcriptional enhancer factor 1 (TEF-1) is a nuclear protein that is expressed in numerous cell types and plays a role in controlling the expression of numerous genes. TEF family members have a highly conserved DNA-binding domain; TEF-1 binds to GT-IIC, Sph/II and M-CAT. TEF-1 also binds to the proximal regulatory element (PRE) of transforming growth factor- α , a member of the EGF family that is overexpressed in many types of cancer. Furthermore, TEF-1 represses transcription in placental cells. *In vitro*, TEF-1 is phosphorylated by several PKC isozymes. TEF-1 is phosphorylated *in vivo* at serine and threonine residues. Phosphorylation of TEF-1, both *in vivo* and *in vitro*, results in a reduction in its DNA-binding capability, which suggests a potential role for TEF-1 in PKC inhibition. TEF-1 also complexes with larger tumor antigen (TAG), and may thus have a role in tumorigenesis. Dimerization of TEF-1 may be important for TEF-1 to function as a regulator of gene transcription.

REFERENCES

1. Takahashi, H., et al. 1995. Repression of involucrin gene expression by transcriptional enhancer factor 1 (TEF-1). *Arch. Dermatol. Res.* 287: 740-746.
2. Wang, D. and Kudlow, J.E. 1999. Purification and characterization of TEF-1, a transcription factor that controls the human transforming growth factor- α promoter. *Biochim. Biophys. Acta* 1449: 50-62.
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. Jiang, S.W., et al. 2000. Novel human TEF-1 isoforms exhibit altered DNA binding and functional properties. *Biochemistry* 39: 3505-3513.
5. Jiang, S.W., et al. 2001. DNA binding of TEA/ATTS domain factors is regulated by protein kinase C phosphorylation in human choriocarcinoma cells. *J. Biol. Chem.* 276: 23464-23470.

CHROMOSOMAL LOCATION

Genetic locus: TEAD1 (human) mapping to 11p15.3; Tead1 (mouse) mapping to 7 F1.

SOURCE

TEF-1 (H-41) is a rabbit polyclonal antibody raised against amino acids 133-173 mapping within an internal region of TEF-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG 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-292514 X, 200 μ g/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.

APPLICATIONS

TEF-1 (H-41) is recommended for detection of TEF-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

TEF-1 (H-41) is also recommended for detection of TEF-1 in additional species, including equine, canine, bovine, porcine and avian.

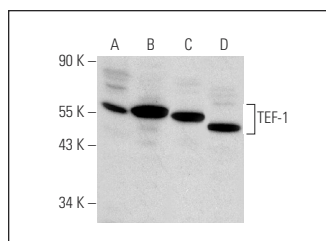
Suitable for use as control antibody for TEF-1 siRNA (h): sc-106608, TEF-1 siRNA (m): sc-154178, TEF-1 shRNA Plasmid (h): sc-106608-SH, TEF-1 shRNA Plasmid (m): sc-154178-SH, TEF-1 shRNA (h) Lentiviral Particles: sc-106608-V and TEF-1 shRNA (m) Lentiviral Particles: sc-154178-V.

TEF-1 (H-41) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

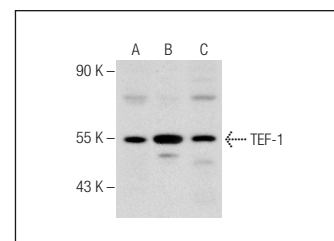
Molecular Weight of TEF-1: 48 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, A-431 whole cell lysate: sc-2201 or JAR cell lysate: sc-2276.

DATA



TEF-1 (H-41): sc-292514. Western blot analysis of TEF-1 expression in HeLa (A), A-431 (B), PC-3 (C) and A549 (D) whole cell lysates.



TEF-1 (H-41): sc-292514. Western blot analysis of TEF-1 expression in HEK293 (A), A-431 (B) and JAR (C) whole cell lysates.

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.

MONOS
Satisfaction
Guaranteed

Try **TEF-1 (E-5): sc-393976** or **TEF-1 (H-4): sc-376113**, our highly recommended monoclonal alternatives to TEF-1 (H-41).