

TEF-1 (E-5): sc-393976

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 (TA α), 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 TEF1, 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. Novel human TEF-1 isoforms exhibit altered DNA binding and functional properties. *Biochemistry* 39: 3505-3513.

CHROMOSOMAL LOCATION

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

SOURCE

TEF-1 (E-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 174-209 within an internal region of TEF-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TEF-1 (E-5) is available conjugated to agarose (sc-393976 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393976 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393976 PE), fluorescein (sc-393976 FITC), Alexa Fluor[®] 488 (sc-393976 AF488), Alexa Fluor[®] 546 (sc-393976 AF546), Alexa Fluor[®] 594 (sc-393976 AF594) or Alexa Fluor[®] 647 (sc-393976 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-393976 AF680) or Alexa Fluor[®] 790 (sc-393976 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393976 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

TEF-1 (E-5) is recommended for detection of TEF-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

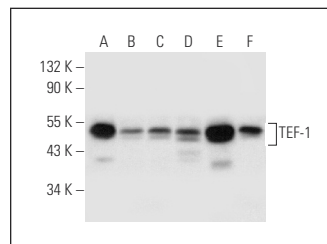
TEF-1 (E-5) is also recommended for detection of TEF-1 in additional species, including equine, canine, bovine and porcine.

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.

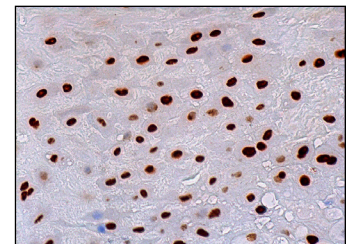
Molecular Weight of TEF-1: 48 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, JAR cell lysate: sc-2276 or PC-12 cell lysate: sc-2250.

DATA



TEF-1 (E-5): sc-393976. Western blot analysis of TEF-1 expression in HeLa nuclear extract (A) and 293T (B), JAR (C), A-431 (D), PC-12 (E) and F9 (F) whole cell lysates.



TEF-1 (E-5): sc-393976. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing nuclear staining of decidual cells.

SELECT PRODUCT CITATIONS

1. Wu, L.M.N., et al. 2018. Programming of Schwann cells by Lats1/2-TAZ/YAP signaling drives malignant peripheral nerve sheath tumorigenesis. *Cancer Cell* 33: 292-308.e7.
2. Qian, B., et al. 2021. m⁶A modification promotes miR-133a repression during cardiac development and hypertrophy via IGF2BP2. *Cell Death Discov.* 7: 157.
3. Zou, M., et al. 2023. Prdm6 drives ductus arteriosus closure by promoting ductus arteriosus smooth muscle cell identity and contractility. *JCI Insight*. E-published.

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.