

# 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, SphI/II and M-CAT. TEF-1 also binds to the proximal regulatory element (PRE) of transforming growth factor- $\alpha$ , 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 $\alpha$ ), 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.

## 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  $\mu$ g IgG $_1$  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  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393976 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393976 PE), fluorescein (sc-393976 FITC), Alexa Fluor<sup>®</sup> 488 (sc-393976 AF488), Alexa Fluor<sup>®</sup> 546 (sc-393976 AF546), Alexa Fluor<sup>®</sup> 594 (sc-393976 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-393976 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-393976 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-393976 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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

Alexa Fluor<sup>®</sup> is a trademark of Molecular Probes, Inc., Oregon, USA

## STORAGE

Store at 4 $^{\circ}$  C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## 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  $\mu$ g per 100-500  $\mu$ 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).

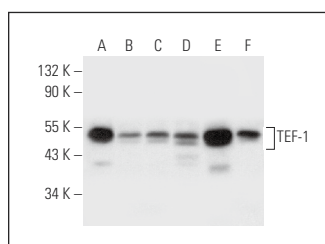
TEF-1 (E-5) is also recommended for detection of TEF-1 in additional species, including equine, canine, bovine and porcine.

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.

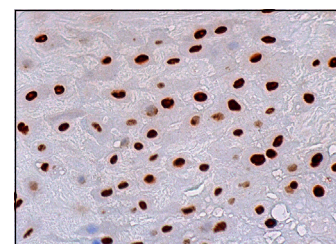
Molecular Weight of TEF-1: 48 kDa.

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

- 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.
- Qian, B., et al. 2021. m<sup>6</sup>A modification promotes miR-133a repression during cardiac development and hypertrophy via IGF2BP2. *Cell Death Discov.* 7: 157.
- Zou, M., et al. 2023. Prdm6 drives ductus arteriosus closure by promoting ductus arteriosus smooth muscle cell identity and contractility. *JCI Insight* 8: e163454.
- Shi, X., et al. 2024. SUMOylation of TEAD1 modulates the mechanism of pathological cardiac hypertrophy. *Adv. Sci.* 11: e2305677.

## RESEARCH USE

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