SANTA CRUZ BIOTECHNOLOGY, INC.

TTF-1 (F-12): sc-25331

BACKGROUND

TTF-1 (thyroid transcription factor-1, BCH, BHC, NK-2, Nkx2.1, Nkx2A, TEBP, TTF1) is a member of the Nkx2 family of homeodomain-containing transcription factors and regulates the transcriptional activity of thyroid-specific genes. TTF-1 influences organogenisis and the maintenance of the differentiated phenotypes of various tissues including thyroid, lung and brain. TTF-1, which is present in the epithelium of the lung, regulates transcription of the surfactant proteins (SP) A, B and C and is essential for lung morphogenesis. In the thyroid, TTF-1 elevates the expression of thyroid specific markers, thyroglobulin, thyroperoxidase and thyrotropin receptors. TTF-1 interacts with SRC-1 and CBP *in vitro*.

REFERENCES

1. Zannini, M., et al. 1996. Mapping and functional role of phosphorylation sites in the thyroid transcription factor-1 (TTF-1). J. Biol. Chem. 271: 2249-2254.
2. Ohe, K., et al. 1996. Interferon-γ suppresses thyrotropin receptor promoter activity by reducing thyroid transcription factor-1 (TTF-1) binding to its recognition site. Mol. Endocrinol. 10: 826-836.

CHROMOSOMAL LOCATION

Genetic locus: NKX2-1 (human) mapping to 14q13.3; Nkx2-1 (mouse) mapping to 12 C1.

SOURCE

TTF-1 (F-12) is a mouse monoclonal antibody raised against amino acids 1-190 of TTF-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain 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-25331 X, 200 µg/0.1 ml.

APPLICATIONS

TTF-1 (F-12) is recommended for detection of TTF-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for TTF-1 siRNA (h): sc-36756, TTF-1 siRNA (m): sc-36757, TTF-1 shRNA Plasmid (h): sc-36756-SH, TTF-1 shRNA Plasmid (m): sc-36757-SH, TTF-1 shRNA (h) Lentiviral Particles: sc-36756-V and TTF-1 shRNA (m) Lentiviral Particles: sc-36757-V.

TTF-1 (F-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

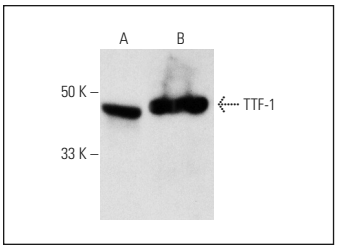
Molecular Weight of TTF-1: 38 kDa.

Positive Controls: TTF-1 (h2): 293T Lysate: sc-159187, TT whole cell lysate: sc-364195 or SHP-77 whole cell lysate: sc-364258.

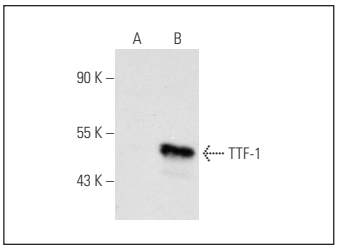
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



TTF-1 (F-12): sc-25331. Western blot analysis of TTF-1 expression in TT (**A**) and AMJ2-C11 (**B**) whole cell lysates.



TTF-1 (F-12): sc-25331. Western blot analysis of TTF-1 expression in non-transfected: sc-117752 (**A**) and human TTF-1 transfected: sc-159187 (**B**) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Mavrou, A., et al. 2008. Proteomic analysis of amniotic fluid in pregnancies with Turner syndrome fetuses. J. Proteome Res. 7: 1862-1866.
2. Li, W. and Ain, K.B. 2010. Human sodium-iodide symporter (hNIS) gene expression is inhibited by a *trans*-active transcriptional repressor, NIS-repressor, containing PARP-1 in thyroid cancer cells. Endocr. Relat. Cancer 17: 383-398.
3. Delgado, O., et al. 2011. Multipotent capacity of immortalized human bronchial epithelial cells. PLoS ONE 6: e22023.
4. Somjen, D., et al. 2011. Anti-thyroid cancer properties of a novel isoflavone derivative, 7-(O)-carboxymethyl daidzein conjugated to N-t-Boc-hexylenediamine *in vitro* and *in vivo*. J. Steroid Biochem. Mol. Biol. 126: 95-103.
5. Lof, C., et al. 2012. Communication between the calcium and cAMP pathways regulate the expression of the TSH receptor: TRPC2 in the center of action. Mol. Endocrinol. 26: 2046-2057.
6. Tsigaridas, A., et al. 2018. Identification of serum proteome signature of irritable bowel syndrome: potential utility of the tool for early diagnosis and patient's stratification. J. Proteomics 188: 167-172.

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.

CONJUGATES

See **TTF-1 (8G7G3/1): sc-53136** for TTF-1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.