SANTA CRUZ BIOTECHNOLOGY, INC.

TTF-1 (H-190): sc-13040

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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*.

CHROMOSOMAL LOCATION

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

SOURCE

TTF-1 (H-190) is a rabbit polyclonal antibody raised against amino acids 1-190 mapping at the N-terminus of TTF-1 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-13040 X, 200 µg/0.1 ml.

APPLICATIONS

TTF-1 (H-190) is recommended for detection of TTF-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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), 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).

TTF-1 (H-190) is also recommended for detection of TTF-1 in additional species, including equine, canine, bovine and porcine.

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 (H-190) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TTF-1: 38 kDa.

Positive Controls: A549 cell lysate: sc-2413, SHP-77 whole cell lysate: sc-364258 or TT whole cell lysate: sc-364195.

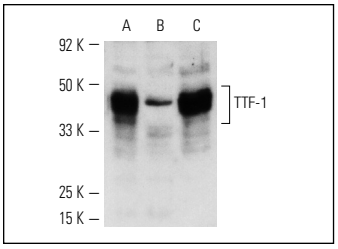
STORAGE

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

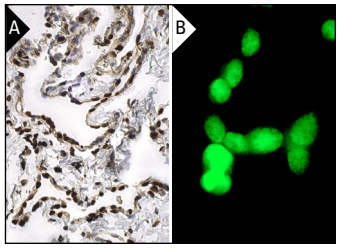
RESEARCH USE

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

DATA



TTF-1 (H-190): sc-13040. Western blot analysis of TTF-1 expression in TT (**A**), A549 (**B**) and SHP-77 (**C**) whole cell lysates.



TTF-1 (H-190): sc-13040. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing nuclear staining of pneumocytes (**A**). Immunofluorescence staining of methanol-fixed TT cells showing nuclear localization (**B**).

SELECT PRODUCT CITATIONS

1. Prince, L.S., et al. 2004. Lipopolysaccharide increases alveolar type II cell number in fetal mouse lungs through Toll-like receptor 4 and NFκB. Am. J. Physiol. Lung Cell. Mol. Physiol. 287: 999-1006.
2. Pan, C.C., et al. 2004. Cytoplasmic immunoreactivity for thyroid transcription factor-1 in hepatocellular carcinoma: a comparative immunohistochemical analysis of four commercial antibodies using a tissue array technique. Am. J. Clin. Pathol. 121: 343-349.
3. Takahashi, Y., et al. 2011. Airway administration of dexamethasone, 3'-5'-cyclic adenosine monophosphate, and isobutylmethylxanthine facilitates compensatory lung growth in adult mice. Am. J. Physiol. Lung Cell. Mol. Physiol. 300: L453-L461.
4. Pacheco-Pinedo, E.C., et al. 2011. Wnt/β-catenin signaling accelerates mouse lung tumorigenesis by imposing an embryonic distal progenitor phenotype on lung epithelium. J. Clin. Invest. 121: 1935-1945.
5. Ma, T., et al. 2012. A subpopulation of dorsal lateral/caudal ganglionic eminence-derived neocortical interneurons expresses the transcription factor Sp8. Cereb. Cortex 22: 2120-2130.
6. Fehrholz, M., et al. 2012. Synergistic effect of caffeine and glucocorticoids on expression of surfactant protein B (SP-B) mRNA. PLoS ONE 7: e51575.
7. Kim, D.W., et al. 2013. Complex temporal changes in TGFβ oncogenic signaling drive thyroid carcinogenesis in a mouse model. Carcinogenesis. E-Published.