

TTF-1 (G-17): sc-12524

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 is a protein that influences organogenesis 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

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CHROMOSOMAL LOCATION

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

SOURCE

TTF-1 (G-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near 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.

Blocking peptide available for competition studies, sc-12524 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-12524 X, 200 µg/0.1 ml.

APPLICATIONS

TTF-1 (G-17) 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), 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).

TTF-1 (G-17) is also recommended for detection of TTF-1 in additional species, including 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 (G-17) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of TTF-1: 38 kDa.

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

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

- Banerjee, E.R., et al. 2012. Human embryonic stem cells differentiated to lung lineage-specific cells ameliorate pulmonary fibrosis in a xenograft transplant mouse model. *PLoS ONE* 7: e33165.

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.



Try **TTF-1 (8G7G3/1): sc-53136** or **TTF-1 (F-12): sc-25331**, our highly recommended monoclonal alternatives to TTF-1 (G-17). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **TTF-1 (8G7G3/1): sc-53136**.