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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# TTF-1 (h2): 293T Lysate: sc-159187

## 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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- Ohe, K., et al. 1996. Interferon-gamma suppresses thyrotropin receptor promoter activity by reducing thyroid transcription factor-1 (TTF-1) binding to its recognition site. *Mol. Endocrinol.* 10: 826-836.
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- Oguchi, H., et al. 1998. Multiple transcripts encoded by the thyroid-specific enhancer-binding protein (T/EBP)/thyroid-specific transcription factor-1 (TTF-1) gene: evidence of autoregulation. *Endocrinology* 139: 1999-2006.
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- Gereben, B., et al. 2001. The human, but not rat, DIO2 gene is stimulated by thyroid transcription factor-1 (TTF-1). *Mol. Endocrinol.* 15: 112-124.
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- Wert, S.E., et al. 2002. Increased expression of thyroid transcription factor-1 (TTF-1) in respiratory epithelial cells inhibits alveolarization and causes pulmonary inflammation. *Dev. Biol.* 242: 75-87.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

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

## CHROMOSOMAL LOCATION

Genetic locus: NKX2-1 (human) mapping to 14q13.3

## PRODUCT

TTF-1 (h2): 293T Lysate represents a lysate of human TTF-1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

TTF-1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive TTF-1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TTF-1 (E-4): sc-514992 is recommended as a positive control antibody for Western Blot analysis of enhanced human TTF-1 expression in TTF-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
 1) Western Blotting: use m-IgG<sub>κ</sub> BP-HRP: sc-516102 or m-IgG<sub>κ</sub> BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



TTF-1 (E-4): sc-514992. 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.

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.

## RESEARCH USE

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