

Thyroid Transcription Factor 1 (D2E8) Rabbit mAb

✓ 100 µl
(10 western blots)



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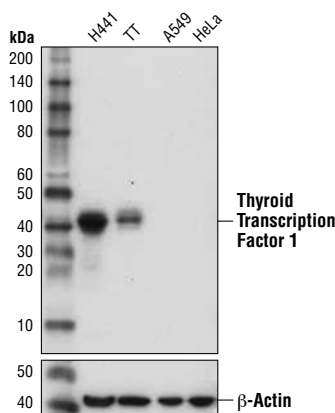
Entrez-Gene ID #7080
UniProt ID #P43699

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IF-IC, IF-F Endogenous	H, M, R, (Mk)	39, 42 kDa	Rabbit IgG**

Background: Thyroid Transcription Factor 1 (TTF1, also known as NKX2-1), a member of the NKX homeobox transcription factor family, was initially discovered in the FRTL-5 rat thyroid cell line (1). Subsequent studies have shown that TTF1 plays an important role in differentiation and morphogenesis of the developing thyroid, lung, and ventral forebrain (2). TTF1 controls the expression of several genes, some of which are tissue specific, such as: thyroglobulin, thyroperoxidase, and the thyrotropin receptor in the thyroid; and surfactant proteins and clara cell secretory protein in the lung (2,3). Investigators have found that TTF1 is expressed in malignant tumors of the thyroid and lung, and it is commonly used as a marker for both primary and malignant lung cancers (4-6).

Specificity/Sensitivity: Thyroid Transcription Factor 1 (D2E8) Rabbit mAb recognizes endogenous levels of total thyroid transcription factor 1 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human thyroid transcription factor 1 protein.



Western blot analysis of extracts from H441 (TTF1 positive), TT (TTF1 positive), A549 (TTF1 negative), and HeLa (TTF1 negative) cells using Thyroid Transcription Factor 1 (D2E8) Rabbit mAb (upper) or β-Actin (D6A8) Rabbit mAb #8457 (lower).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

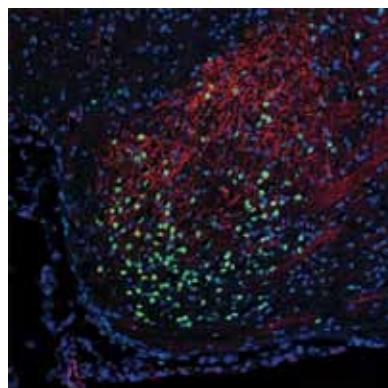
Western blotting	1:1000
Immunofluorescence (IF-IC)	1:50
Immunofluorescence (IF-F)	1:50

For product specific protocols please see the web page for this product at www.cellsignaling.com.

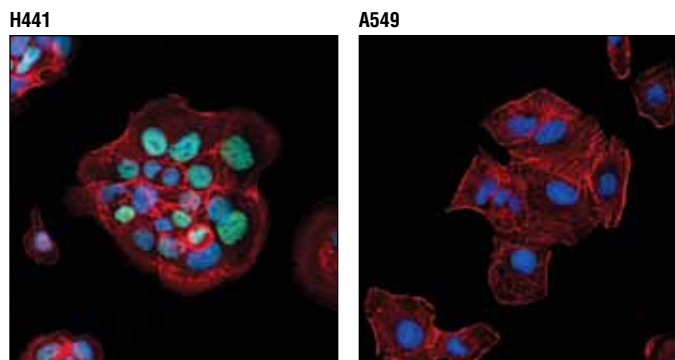
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Background References:

- (1) Civitareale, D. et al. (1989) *EMBO J* 8, 2537-42.
- (2) Boggaram, V. (2009) *Clin Sci (Lond)* 116, 27-35.
- (3) Yamaguchi, T. et al. (2012) *Cancer Cell* 21, 348-61.
- (4) Whithaus, K. et al. (2012) *Arch Pathol Lab Med* 136, 155-62.
- (5) Yoshida, A. et al. (2011) *Lung Cancer* 72, 309-15.
- (6) Moldvay, J. et al. (2004) *Pathol Oncol Res* 10, 85-8.



Confocal immunofluorescent analysis of the hypothalamic region of adult mouse brain using Thyroid Transcription Factor 1 (D2E8) Rabbit mAb (green) and Neurofilament-H (RMdO 20) Mouse mAb #2836 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).



Confocal immunofluorescent analysis of H441 (left) or A549 (right) cells using Thyroid Transcription Factor 1 (D2E8) Rabbit mAb (green). Actin filaments were labeled with DyLight™ 554 Phalloidin #13054 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

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Tween is a registered trademark of ICI Americas, Inc.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.