

#12373 Store at -20°C

Thyroid Transcription Factor 1 (TTF-1) (D2E8) Rabbit mAb



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Orders: 877-616-CELL (2355)
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Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IF-F, IF-IC	H M R	Endogenous	39, 42	Rabbit	#P43699	7080

Product Usage Information

Application

Western Blotting
Immunofluorescence (Frozen)
Immunofluorescence (Immunocytochemistry)

Dilution

1:1000
1:50
1:50

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.

For a carrier free (BSA and azide free) version of this product see product #19428.

Specificity / Sensitivity

Thyroid Transcription Factor 1 (TTF-1) (D2E8) Rabbit mAb recognizes endogenous levels of total thyroid transcription factor 1 protein.

Species predicted to react based on 100% sequence homology:

Monkey

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.

Background

Thyroid Transcription Factor 1 (TTF-1, 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 TTF-1 plays an important role in differentiation and morphogenesis of the developing thyroid, lung, and ventral forebrain (2). TTF-1 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 TTF-1 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).

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

WB: Western Blotting **IF-F:** Immunofluorescence (Frozen)
IF-IC: Immunofluorescence (Immunocytochemistry)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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