# abcam

## Product datasheet

## Anti-TTF1 antibody [EP1584Y] ab76013

Recombinant RabMAb

★★★★★ 17 Abreviews 146 References 10 Images

#### Overview

**Product name** Anti-TTF1 antibody [EP1584Y]

**Description** Rabbit monoclonal [EP1584Y] to TTF1

**Host species** Rabbit

**Tested applications** Suitable for: IHC-P. WB

Unsuitable for: Flow Cyt or ICC/IF

Species reactivity Reacts with: Mouse, Rat, Human

**Immunogen** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

(Peptide available as ab187893)

Positive control IHC-P: Human lung carcinoma and thyroid carcinoma tissue; Rat lung tissue; Mouse lung tissue.

WB: HeLa and HEK-293 cell lysate; Rat and mouse lung lysate. Flow Cyt: HeLa and A549 cells.

IHC-Fr: Murine fetal lung tissue.

**General notes** This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

#### **Properties**

**Form** Liquid

Storage instructions Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

Storage buffer pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: PBS, 40% Glycerol, 0.05% BSA

**Purity** Protein A purified

Clonality Monoclonal

Clone number EP1584Y

**Isotype** IgG

#### **Applications**

#### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab76013 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	**** <u>(6)</u>	1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.  See IHC antigen retrieval protocols.
WB	<b>★★★★★</b> (4)	1/2000. Detects a band of approximately 38-42 kDa (predicted molecular weight: 38-42 kDa). Can be blocked with <u>TTF1</u> peptide (ab187893). For unpurified use at 1/500-1/1000.

**Application notes** 

Is unsuitable for Flow Cyt or ICC/IF.

#### **Target**

**Function** 

Transcription factor that binds and activates the promoter of thyroid specific genes such as thyroglobulin, thyroperoxidase, and thyrotropin receptor. Crucial in the maintenance of the thyroid differentiation phenotype. May play a role in lung development and surfactant homeostasis.

**Tissue specificity** 

Thyroid and lung.

Involvement in disease

Defects in NKX2-1 are the cause of benign hereditary chorea (BHC) [MIM:118700]; also known as hereditary chorea without dementia. BHC is an autosomal dominant movement disorder. The early onset of symptoms (usully before the age of 5) and the observation that in some BHC families the symptoms tend to decrease in adulthood suggests that the disorder results from a developmental disturbance of the brain. BHC is non-progressive and patients have normal or slightly below normal intelligence. There is considerable inter- and intrafamilial variability, including dysarthria, axial distonia and gait disturbances.

Defects in NKX2-1 are the cause of choreoathetosis, hypothyroidism, and neonatal respiratory distress (CHNRD) [MIM:610978]. This syndrome include neurological, thyroid, and respiratory

problems.

Sequence similarities

Belongs to the NK-2 homeobox family.

Contains 1 homeobox DNA-binding domain.

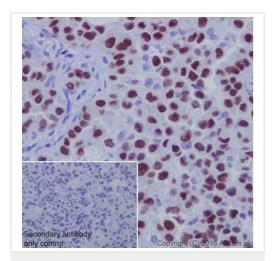
Post-translational modifications

Phosphorylated on serine residues.

**Cellular localization** 

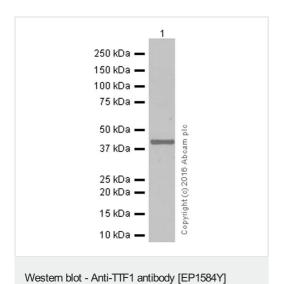
Nucleus.

#### **Images**



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-TTF1 antibody
[EP1584Y] (ab76013)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung carcinoma tissue sections labeling TTF1 with purified ab76013 at 1/250 dilution (0.6 µg/ml). Heat mediated antigen retrieval was performed using EDTA Buffer, PH9. Hematoxylin was used to counter stain. <a href="mailto:ab97051">ab97051</a>, a Goat Anti-Rabbit IgG H&L (HRP) secondary antibody was used at 1/500 dilution. PBS instead of the primary antibody was used as the negative control.



(ab76013)

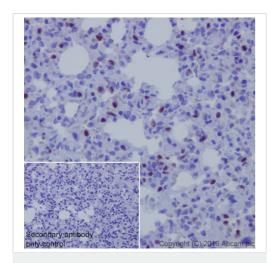
Anti-TTF1 antibody [EP1584Y] (ab76013) at 1/10000 dilution (purified) + HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate at 20  $\mu g$ 

#### **Secondary**

Anti-Rabbit lgG (HRP), specific to the non-reduced form of lgG at 1/2000 dilution

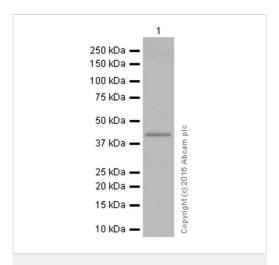
**Predicted band size:** 38-42 kDa **Observed band size:** 40 kDa

Blocking and diluting buffer: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-TTF1 antibody
[EP1584Y] (ab76013)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat lung tissue sections labeling TTF1 with purified ab76013 at 1/250 dilution (0.6 µg/ml). Heat mediated antigen retrieval was performed using EDTA Buffer, PH9. Hematoxylin was used to counter stain. <a href="mailto:ab97051">ab97051</a>, a Goat Anti-Rabbit lgG H&L (HRP) secondary antibody was used at 1/500 dilution. PBS instead of the primary antibody was used as the negative control.



Western blot - Anti-TTF1 antibody [EP1584Y] (ab76013)

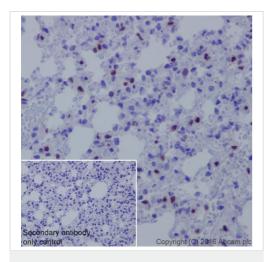
Anti-TTF1 antibody [EP1584Y] (ab76013) (purified) + Rat lung lysate at 15  $\mu$ g

#### **Secondary**

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

**Predicted band size:** 38-42 kDa **Observed band size:** 40 kDa

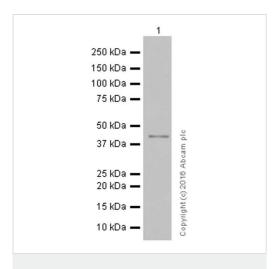
Blocking and diluting buffer: 5% NFDM/TBST.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-TTF1 antibody

[EP1584Y] (ab76013)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse lung tissue sections labeling TTF1 with purified ab76013 at 1/250 dilution (0.6 µg/ml). Heat mediated antigen retrieval was performed using EDTA Buffer, PH9. Hematoxylin was used to counter stain. **ab97051**, a Goat Anti-Rabbit lgG H&L (HRP) secondary antibody was used at 1/500 dilution. PBS instead of the primary antibody was used as the negative control.



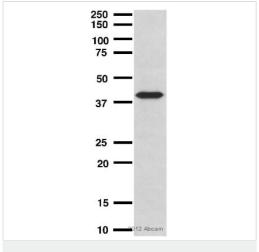
Western blot - Anti-TTF1 antibody [EP1584Y] (ab76013)

Anti-TTF1 antibody [EP1584Y] (ab76013) at 1/2000 dilution (purified) + Mouse lung lysate at 20 µg

#### **Secondary**

Anti-Rabbit lgG (HRP), specific to the non-reduced form of lgG at 1/2000 dilution

**Predicted band size:** 38-42 kDa **Observed band size:** 40 kDa



Western blot - Anti-TTF1 antibody [EP1584Y] (ab76013)

This image is courtesy of an anonymous Abreview

Anti-TTF1 antibody [EP1584Y] (ab76013) at 1/2000 dilution (unpurified) + HEK293 whole cell lysate at 30  $\mu g$ 

### **Secondary**

HRP-conjugated goat anti-rabbit polyclonal IgG at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 38-42 kDa **Observed band size:** 40 kDa

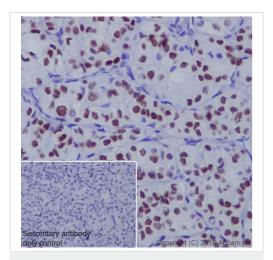
Exposure time: 2 minutes

Blocked with 5% milk

250 kDa — 150 kDa — 150 kDa — 25 kDa — 20 kDa — 20 kDa — 25 kDa — 20 kDa — 15 kDa — 20 kDa — 15 kDa — 20 kDa —

Western blot - Anti-TTF1 antibody [EP1584Y] (ab76013)

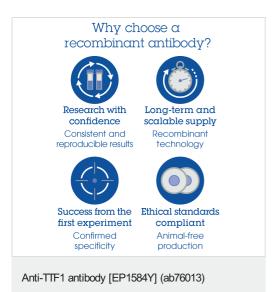
Different batches of ab76013 were tested on HeLa (Human cervix adenocarcinoma epithelial cell) lysate at 0.05  $\mu$ g/ml. 15  $\mu$ g of lysate was loaded in each lane. Bands observed at 40 kDa.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-TTF1 antibody

[EP1584Y] (ab76013)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human thyroid carcinoma tissue sections labeling TTF1 with purified ab76013 at 1/250 dilution (0.6 µg/ml). Heat mediated antigen retrieval was performed using EDTA Buffer, PH9. Hematoxylin was used to counter stain. <a href="mailto:ab97051">ab97051</a>, a Goat Anti-Rabbit IgG H&L (HRP) secondary antibody was used at 1/500 dilution. PBS instead of the primary antibody was used as the negative control.



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