abcam

Product datasheet

Anti-TTF1 antibody [EP1584Y] - BSA and Azide free ab216648



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Overview

Product name Anti-TTF1 antibody [EP1584Y] - BSA and Azide free

Description Rabbit monoclonal [EP1584Y] to TTF1 - BSA and Azide free

Host species Rabbit

Tested applications Suitable for: IHC-P, WB

Unsuitable for: Flow Cyt,ICC/IF or IP

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 HeLa cell lysate. Human thyroid carcinoma and lung adenocarcinoma tissue.

General notes ab216648 is the carrier-free version of <u>ab76013</u>.

Our <u>carrier-free</u> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.

This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.

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**.

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Properties

Form Liquid

Storage instructions Shipped at 4°C. Store at +4°C. Do Not Freeze.

Storage buffer pH: 7.20

Constituent: PBS

Carrier free Yes

Purity Protein A purified

Clonality Monoclonal
Clone number EP1584Y

Isotype IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab216648 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	★★★★★ (1)	Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Detects a band of approximately 38-42 kDa (predicted molecular weight: 38-42 kDa). Can be blocked with TTF1 peptide (ab187893) .

Application notes

Is unsuitable for Flow Cyt,ICC/IF or IP.

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.

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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.

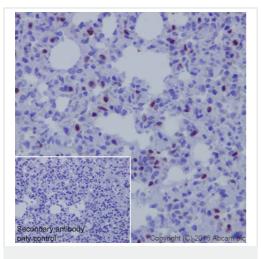
Post-translational modifications

Phosphorylated on serine residues.

Cellular localization

Nucleus.

Images

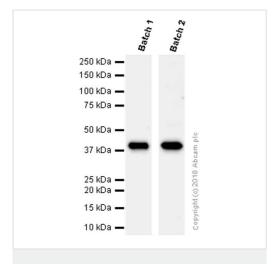


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-TTF1 antibody

[EP1584Y] - BSA and Azide free (ab216648)

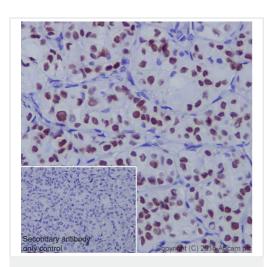
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat lung tissue sections labeling TTF1 with purified ab76013 at 1/250 dilution (0.6 µg/ml). Heat mediated antigen retrieval was performed using EDTA Buffer, PH9. Hematoxylin was used to counter stain. ab97051, a Goat Anti-Rabbit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

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76013).



Western blot - Anti-TTF1 antibody [EP1584Y] - BSA and Azide free (ab216648)

This data was developed using <u>ab76013</u>, the same antibody clone in a different buffer formulation. Different batches of <u>ab76013</u> were tested on HeLa (Human cervix adenocarcinoma epithelial cell) lysate at 0.05 μ g/ml. 15 μ g of lysate was loaded in each lane. Bands observed at 40 kDa.

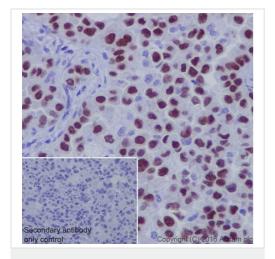


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-TTF1 antibody

[EP1584Y] - BSA and Azide free (ab216648)

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. ab97051, 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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76013).



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

[EP1584Y] - BSA and Azide free (ab216648)

This IHC data was generated using the same anti-TTF1 antibody clone, EP1584Y, in a different buffer formulation (cat# **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. **ab97051**, 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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