

# NKX2-1 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP10734a

### **Product Information**

**Application** WB, FC, E **Primary Accession** P43699

Other Accession <u>P23441</u>, <u>P50220</u>, <u>NP 003308.1</u>

**Reactivity** Human, Rat, Mouse

Predicted Mouse, Rat
Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Clone Names RB28559
Calculated MW 38596
Antigen Region 2-1

## **Additional Information**

**Gene ID** 7080

Other Names Homeobox protein Nkx-21, Homeobox protein NK-2 homolog A, Thyroid

nuclear factor 1, Thyroid transcription factor 1, TTF-1, Thyroid-specific

enhancer-binding protein, T/EBP, NKX2-1, NKX2A, TITF1, TTF1

**Target/Specificity**This NKX2-1 antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 1-30 amino acids from the N-terminal

region of human NKX2-1.

**Dilution** WB~~1:2000 FC~~1:25 E~~Use at an assay dependent concentration.

**Format** Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.

This antibody is purified through a protein A column, followed by peptide

affinity purification.

**Storage** Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store

at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** NKX2-1 Antibody (N-term) is for research use only and not for use in

diagnostic or therapeutic procedures.

## **Protein Information**

Name NKX2-1 ( <u>HGNC:11825</u>)

Synonyms NKX2A, TITF1, TTF1

#### **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. Forms a regulatory loop with GRHL2 that coordinates lung epithelial cell morphogenesis and differentiation. Activates the transcription of GNRHR and plays a role in enhancing the circadian oscillation of its gene expression. Represses the transcription of the circadian transcriptional repressor NR1D1 (By similarity).

**Cellular Location** Nucleus {ECO:0000250 | UniProtKB:P50220}.

Tissue Location Thyroid and lung.

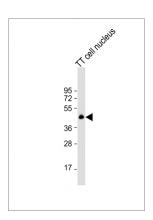
## **Background**

This gene encodes a protein initially identified as a thyroid-specific transcription factor. The encoded protein binds to thyroglobulin promoter and regulates the expression of thyroid-specific genes but has also been shown to regulate the expression of genes involved in morphogenesis. Mutations and deletions in this gene are associated with benign hereditary chorea, choreoathetosis, congenital hypothyroidism, and neonatal respiratory distress, and may be associated with thyroid cancer. Multiple transcript variants encoding different isoforms have been found for this gene.

## References

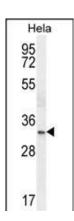
Kim, J.H., et al. Acta Cytol. 54(3):277-282(2010) Xu, B., et al. Appl. Immunohistochem. Mol. Morphol. 18(3):244-249(2010) Narumi, S., et al. J. Clin. Endocrinol. Metab. 95(4):1981-1985(2010) Guillot, L., et al. Hum. Mutat. 31 (2), E1146-E1162 (2010): Cantara, S., et al. Thyroid Res 3 (1), 4 (2010):

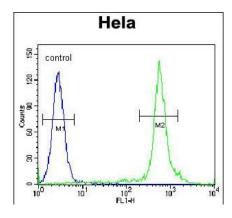
# **Images**



Anti-NKX2-1 Antibody (N-term) at 1:1000 dilution + TT cell nucleus lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size: 39 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

NKX2-1 Antibody (N-term) (Cat. #AP10734a) western blot analysis in Hela cell line lysates (35ug/lane). This demonstrates the NKX2-1 antibody detected the NKX2-1 protein (arrow).





NKX2-1 Antibody (N-term) (Cat. #AP10734a) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.