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TTF-1 / NKX2.1 (Thyroid & Lung Epithelial Marker) Antibody - With BSA and Azide

Mouse Monoclonal Antibody [Clone NX2.1/690]
Catalog # AH12419

Product Information

Application	IF, FC, IHC-P
Primary Accession	P43699
Other Accession	7080, 94367
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Clone Names	NX2.1/690
Calculated MW	38596

Additional Information

Gene ID	7080
Other Names	Homeobox protein Nkx-2.1, 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
Application Note	IF~~1:50~200 FC~~1:10~50 IHC-P~~N/A
Storage	Store at 2 to 8°C.Antibody is stable for 24 months.
Precautions	TTF-1 / NKX2.1 (Thyroid & Lung Epithelial Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NKX2-1 (HGNC:11825)
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.

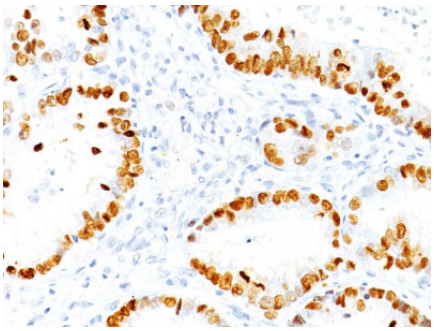
Background

Recognizes a protein of 40kDa, identified as Thyroid transcription factor-1 (TTF-1). TTF-1 is a member of the NKx2 family of homeodomain transcription factors. It is expressed in epithelial cells of the thyroid gland and the lung. Nuclei from liver, stomach, pancreas, small intestine, colon, kidney, breast, skin, testes, pituitary, prostate, and adrenal glands are unreactive. Anti-TTF-1 is useful in differentiating primary adenocarcinoma of the lung from metastatic carcinomas originating in the breast, mediastinal germ cell tumors, and malignant mesothelioma. It can also be used to differentiate small cell lung carcinoma from lymphoid infiltrates. Loss of TTF-1 expression in non-small cell lung carcinoma has been associated with aggressive behavior of such neoplasms. TTF-1 reactivity is also seen in thyroid malignancies.

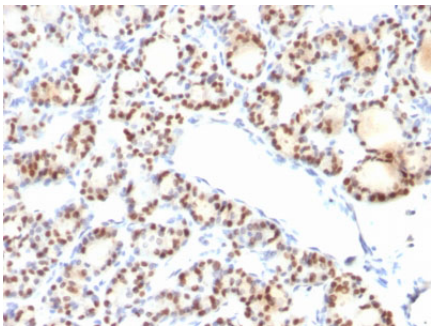
References

Wert, S.E., et al. 2002. Increased expression of TTF-1 in respiratory epithelial cells inhibits alveolarization and causes pulmonary inflammation. Dev. Biol. 242: 75-87. |

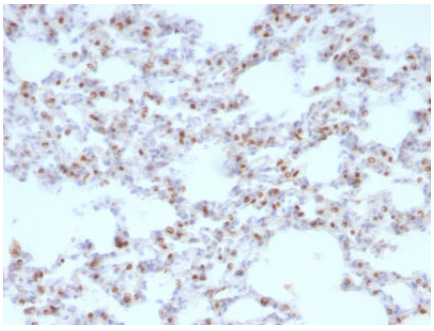
Images



Formalin-fixed, paraffin-embedded human Lung Adenocarcinoma stained with TTF-1 Monoclonal Antibody (NX2.1/690)



Formalin-fixed, paraffin-embedded human Thyroid stained with TTF-1 Monoclonal Antibody (NX2.1/690)



Formalin-fixed, paraffin-embedded Rat Lung stained with TTF-1 Monoclonal Antibody (NX2.1/690)