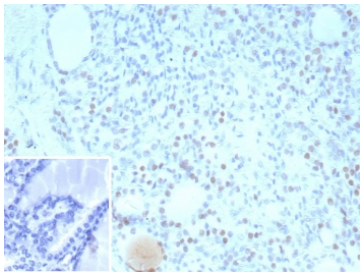
TTF-1 Antibody for IHC / TTF-1 Immunohistochemistry Antibody [clone NX2.1/9035] (V5551)

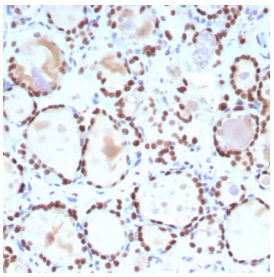
Catalog No.	Formulation	Size
V5551-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5551-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5551SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

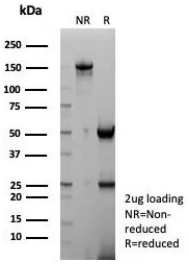
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2a, kappa
Clone Name	NX2.1/9035
Purity	Protein A/G affinity
UniProt	P43699
Localization	Nucleus
Applications	Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This TTF-1 antibody is available for research use only.



TTF-1 Antibody for IHC / TTF-1 Immunohistochemistry Antibody (clone NX2.1/9035) immunohistochemistry analysis of human thyroid tissue. Formalin-fixed, paraffin-embedded human thyroid tissue stained with mouse monoclonal clone NX2.1/9035 antibody demonstrates nuclear staining in thyroid follicular epithelial cells, consistent with the nuclear localization of Thyroid transcription factor 1 (TTF-1 / NKX2-1). The nuclear immunoreactivity highlights TTF-1 expression in follicular epithelial cells detected by immunohistochemistry in FFPE thyroid tissue sections. Inset: PBS used in place of primary antibody (secondary antibody negative control). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



TTF-1 Antibody for IHC / TTF-1 Immunohistochemistry Antibody (clone NX2.1/9035) immunohistochemistry analysis of human thyroid tissue. Formalin-fixed, paraffin-embedded human thyroid tissue stained with mouse monoclonal clone NX2.1/9035 antibody demonstrates strong nuclear staining in thyroid follicular epithelial cells, consistent with the nuclear localization of Thyroid transcription factor 1 (TTF-1 / NKX2-1). The nuclear immunoreactivity highlights TTF-1 expression within follicular epithelial cells in FFPE thyroid tissue sections analyzed by immunohistochemistry. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free TTF-1 antibody (clone NX2.1/9035) as confirmation of integrity and purity.

Description

Thyroid transcription factor 1 (TTF-1), encoded by the NKX2-1 gene, is a nuclear homeobox transcription factor involved in regulation of gene expression in epithelial tissues during development and cellular differentiation. TTF-1 antibody, also referred to as Thyroid transcription factor 1 antibody or NKX2-1 antibody in the literature, recognizes a transcription factor localized to the nucleus of specific epithelial cell populations. The TTF-1 Antibody for IHC / TTF-1 Immunohistochemistry Antibody (clone NX2.1/9035) is a mouse monoclonal antibody developed for immunohistochemistry detection of TTF-1 in formalin-fixed, paraffin-embedded tissue sections, enabling visualization of nuclear TTF-1 protein expression directly within histologic tissue architecture.

Immunohistochemistry analysis of TTF-1 is widely used to examine nuclear transcription factor expression within tissue sections. Because TTF-1 functions as a nuclear transcription factor, immunohistochemistry staining produces a distinct nuclear staining pattern in positive cells when applied to FFPE tissues. This clear nuclear signal allows pathologists and researchers to identify TTF-1 expressing cells within complex tissue structures using brightfield immunohistochemistry microscopy.

In tissue-based studies, TTF-1 immunohistochemistry allows evaluation of transcription factor expression while preserving cellular morphology and tissue architecture. Immunohistochemistry staining of FFPE specimens enables direct visualization of TTF-1 expression in epithelial tissues and tumors, allowing assessment of protein distribution within specific cell populations. The nuclear staining pattern produced by TTF-1 antibodies provides a clear immunohistochemical marker that can be interpreted within the histologic context of the tissue section.

Large-scale human tissue microarray (TMA) immunohistochemistry studies further demonstrate the tissue distribution of TTF-1 expression across numerous human organs. In normal tissue microarray panels containing many different tissues, TTF-1 immunohistochemistry staining typically demonstrates selective nuclear labeling in specific epithelial cell types while most other tissues remain negative. These tissue microarray immunohistochemistry findings highlight the tissue-specific expression pattern of TTF-1 and demonstrate the value of immunohistochemistry analysis for evaluating transcription factor distribution across diverse tissue types.

Cancer tissue microarray immunohistochemistry analyses also demonstrate nuclear TTF-1 staining in tumors derived from TTF-1 expressing epithelial cell lineages. Visualization of nuclear transcription factor expression within tumor cells provides important information about cellular differentiation and tumor classification when evaluating tissue specimens by immunohistochemistry.

The mouse monoclonal clone NX2.1/9035 antibody provides reliable nuclear staining of TTF-1 when used for immunohistochemistry analysis of FFPE tissue sections. Because TTF-1 localizes to the nucleus, immunohistochemistry staining with TTF-1 Antibody for IHC / TTF-1 Immunohistochemistry Antibody produces a sharp nuclear signal that allows clear identification of TTF-1 positive cells in histologic tissue specimens.

Learn more about TTF-1 / NKX2.1 biology, diagnostic applications, and additional validated products on our TTF-1 Antibody page.

Application Notes

Optimal dilution of the TTF-1 Antibody for IHC / TTF-1 Immunohistochemistry Antibody should be determined by the researcher.

Immunogen

A recombinant fragment (within amino acids 1-200) of human Thyroid transcription factor-1 protein was used as the immunogen for the TTF-1 antibody.

Storage

Aliquot the TTF-1 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Thyroid transcription factor 1 antibody, NKX2-1 antibody, TTF1 antibody, NKX2-1 immunohistochemistry antibody, Thyroid transcription factor-1 antibody

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