

DESCRIPTION

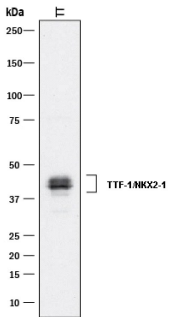
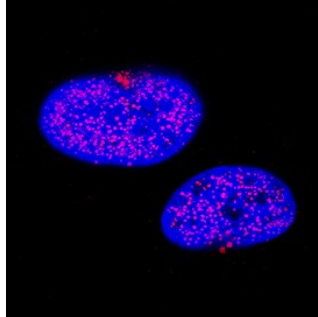
Species Reactivity	Human
Specificity	Detects human TTF-1/NKX2-1 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 2054B
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	E. coli-derived recombinant human TTF-1/NKX2-1 Ala40-Pro111 Accession # P43699
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	3-25 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human TTF-1/NKX2-1 by Western Blot. Western blot shows lysates of TT human medullary thyroid cancer cell line. PVDF membrane was probed with 1 µg/mL of Rabbit Anti-Human TTF-1/NKX2-1 Monoclonal Antibody (Catalog # MAB9458) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). Specific bands were detected for TTF-1/NKX2-1 at approximately 40-45 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Immunocytochemistry</p>  <p>TTF-1/NKX2-1 in A549 Human Cell Line. TTF-1/NKX2-1 was detected in immersion fixed A549 human lung carcinoma cell line using Rabbit Anti-Human TTF-1/NKX2-1 Monoclonal Antibody (Catalog # MAB9458) at 3 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to nuclei. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

NK2 homeobox 1 (NKX2-1), also known as thyroid transcription factor 1 (TTF-1), is a 371 amino acids (aa) protein encoded by the NKX2-1 gene. Expression of NKX2-1 transcription factor is the earliest indication of the establishment of respiratory progenitors as well as thyroid epithelium in the ventral foregut endoderm. NKX2-1 is critical for the expression of many pulmonary specific genes, including surfactant proteins SP-A, -B, and -C, as well as thyroid specific genes that are important in the maintenance of the thyroid differentiation phenotype.