R&D Systems
Tools for Cell Biology Research™

Mouse NKX3.1 Antibody

Monoclonal Rat IgG_1 Clone # 738907

Catalog Number: MAB6475

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse NKX3.1 in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) NKX3.1 or rhNKX6.1 is observed.
Source	Monoclonal Rat IgG_1 Clone # 738907
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant mouse NKX3.1 Met1-Pro124 (predicted) Accession # P97436
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 as a 0.2 µm filtered solution in PBS.

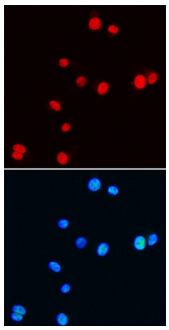
APPLICATIONS

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
Immunocytochemistry	8-25 µg/mL	See Below

DATA

Immunocytochemistry



NKX3.1 in NIH-3T3 Mouse Cell Line. NKX3.1 was detected in immersion fixed NIH-3T3 mouse embryonic fibroblast cell line using Rat Anti-Mouse NKX3.1 Monoclonal Antibody (Catalog # MAB6475) at 25 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red, upper panel; Catalog # NL013) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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.** ● 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

NKX3.1 (Homeobox protein NK-3 homolog A) is a 38 kDa member of the NK-3 homeobox family of transcription factors. It is expressed in mouse palatine and prostatic epithelium, and appears to be regulated by both testosterone and estrogen. NKX3.1 apparently promotes prostate gland development, and acts as a tumor-suppressor/transcriptional repressor by interacting with HDAC-1, potentially inducing IGFBP-3 secretion, and increasing p53 acetylation and half-life. Mouse NKX3.1 is 237 amino acids (aa) in length. It contains a DNA-binding homeodomain (aa 125-184) and undergoes ubiquitination at multiple sites. Over aa 1-124, mouse NKX3.1 shares 77% and 48% aa identity with rat and human NKX3.1, respectively.

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