

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human NKX6.1 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human NKX2E, 2.2, 3.1 or recombinant mouse NKX3.1 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 631438
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human NKX6.1 Met1-Pro120 Accession # P78426
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.

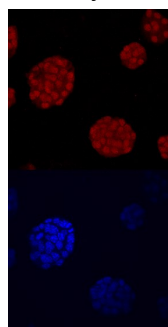
APPLICATIONS

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
Immunocytochemistry	8-25 µg/mL	See Below

DATA

Immunocytochemistry



NKX6.1 in βTC-6 Mouse Cell Line. NKX6.1 was detected in immersion fixed βTC-6 mouse beta cell insulinoma cell line using Human NKX6.1 Monoclonal Antibody (Catalog # MAB5857) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red, upper panel; Catalog # NL007) 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. <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

NKX6.1 (NK homeobox factor 6.1; also NKX6A) is a 39-43 kDa member of the homeodomain family of transcription factors. It is expressed in embryonic ventral neural tube where it drives neural progenitors to form motoneurons and V2-type interneurons. It is also expressed in both fetal and neonatal pancreas where it promotes a β-cell phenotype. NKX6.1 exhibits both transcriptional gene repression (NKX6.2 and Dbx2) and activation (cyclin A2 and B1). When overexpressed, it induces β-cell mitosis. Human NKX6.1 is 367 amino acids (aa) in length. It contains a repressor region composed of Pro and Ala (aa 136-173), a DNA binding homeobox (aa 236-295) and a Glu:Asp-rich transactivation domain (aa 305-337). Over aa 1-120, human NKX6.1 shares 96% aa identity with mouse NKX6.1.