

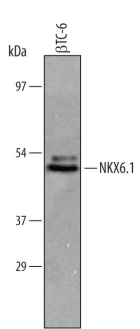
DESCRIPTION	
Species Reactivity	Human/Mouse
Specificity	Detects human and mouse NKX6.1 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human NKX3.1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human NKX6.1 Met1-Pro120 Accession # NP_006159
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
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Simple Western	10 µg/mL	See Below

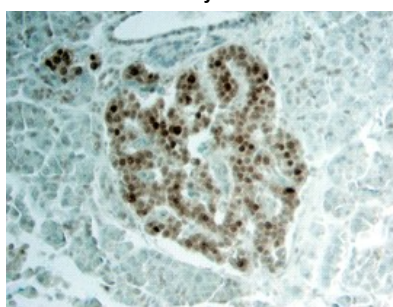
DATA

Western Blot



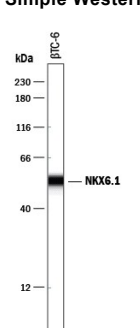
Detection of Mouse NKX6.1 by Western Blot. Western blot shows lysates of βTC-6 mouse beta cell insulinoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human/Mouse NKX6.1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5857) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for NKX6.1 at approximately 46 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

Immunohistochemistry




NKX6.1 in Human Pancreas. NKX6.1 was detected in immersion fixed paraffin-embedded sections of human pancreas using Goat Anti-Human/Mouse NKX6.1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5857) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Simple Western



Detection of Mouse NKX6.1 by Simple Western™. Simple Western lane view shows lysates of βTC-6 mouse beta cell insulinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for NKX6.1 at approximately 54 kDa (as indicated) using 10 µg/mL of Goat Anti-Human/Mouse NKX6.1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5857) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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

NKX6.1 (NK homeobox factor 6.1; also NKX6A) is a 39-46 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.