

DESCRIPTION

Species Reactivity	Human
Specificity	Detects endogenous human NKX2.5 in Western blots.
Source	Monoclonal Mouse IgG ₁ Clone # 259415
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human NKX2.5 Gln24-Arg137 Accession # P52952
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.

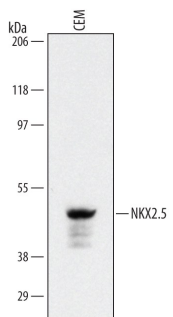
APPLICATIONS

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
Simple Western	10 µg/mL	See Below

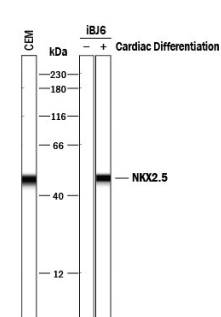
DATA

Western Blot




Detection of Human NKX2.5 by Western Blot. Western blot shows lysates of CEM human T-lymphoblastoid cell line. PVDF membrane was probed with 1 µg/mL of Human NKX2.5 Monoclonal Antibody (Catalog # MAB24441) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for NKX2.5 at approximately 48 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Human NKX2.5 by Simple Western™. Simple Western lane view shows lysates of CEM human T-lymphoblastoid cell line and iBJ6 human induced pluripotent stem cell line untreated (-) or differentiated to cardiomyocytes (+), loaded at 0.2 mg/mL. A specific band was detected for NKX2.5 at approximately 48 kDa (as indicated) using 10 µg/mL of Mouse Anti-Human NKX2.5 Monoclonal Antibody (Catalog # MAB24441). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



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

NKX2.5, also called NKX-2E or Csx (Cardiac specific homeobox protein), is a transcriptional activator. Its expression is essential for normal cardiovascular development. During embryonic development, NKX2.5 is also expressed in the foregut, thyroid, spleen, and stomach, while in the adult expression is predominantly restricted to the heart. NKX2.5 protein contains a central single DNA binding domain flanked by two Ala/Pro rich domains. Sumoylation of NKX2.5 at Lys-51 enhances its DNA binding and transcriptional activity.