

Anti-Nkx2.5 Picoband Antibody

Catalog # ABO11984

Product Information

Application	WB
Primary Accession	P52952
Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Homeobox protein Nkx-2.5(NKX2-5) detection. Tested with WB in Human;Mouse.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	1482
Other Names	Homeobox protein Nkx-2.5, Cardiac-specific homeobox, Homeobox protein CSX, Homeobox protein NK-2 homolog E, NKX2-5, CSX, NKX2.5, NKX2E
Calculated MW	34918
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Mouse
Subcellular Localization	Nucleus .
Tissue Specificity	Expressed only in the heart.
Source	Eukaryota
Protein Name	Homeobox protein Nkx-2.5
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human Nkx2.5 (103-132aa AKDPRAEKKELCALQKAVELEKTEADNAER), different from the related mouse and rat sequences by five amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Sequence Similarities

Belongs to the NK-2 homeobox family.

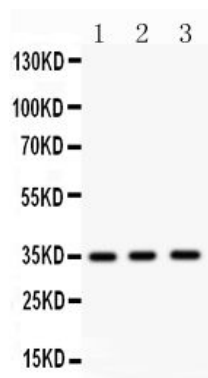
Protein Information

Name	NKX2-5
Synonyms	CSX, NKX2.5, NKX2E
Function	Transcription factor required for the development of the heart and the spleen (PubMed: 22560297). During heart development, acts as a transcriptional activator of NPPA/ANF in cooperation with GATA4 (By similarity). May cooperate with TBX2 to negatively modulate expression of NPPA/ANF in the atrioventricular canal (By similarity). Binds to the core DNA motif of NPPA promoter (PubMed: 22849347 , PubMed: 26926761). Together with PBX1, required for spleen development through a mechanism that involves CDKN2B repression (PubMed: 22560297). Positively regulates transcription of genes such as COL3A1 and MMP2, resulting in increased pulmonary endothelial fibrosis in response to hypoxia (PubMed: 29899023).
Cellular Location	Nucleus.
Tissue Location	Expressed only in the heart.

Background

Homeobox protein Nkx-2.5, also known as NKX2E or CSX is a protein that in humans is encoded by the NKX2-5 gene. It is mapped to 5q35.1. Homeobox-containing genes play critical roles in regulating tissue-specific gene expression essential for tissue differentiation, as well as determining the temporal and spatial patterns of development. Nkx2.5 and Tbx5 directly bound to the promoter of the gene encoding cardiac-specific natriuretic peptide precursor type A (NPPA) in tandem, and both transcription factors showed synergistic activation. The cardiac homeobox protein Nkx2.5 is essential in cardiac development, and mutations in CSX (which encodes Nkx2.5) cause various congenital heart malformations.

Images



Anti- NKX2 Picoband antibody, ABO11984, Western blotting
All lanes: Anti NKX2 (ABO11984) at 0.5ug/ml
Lane 1: Mouse Spleen Tissue Lysate at 50ug
Lane 2: Mouse Cardiac Muscle Tissue Lysate at 50ug
Lane 3: HELA Whole Cell Lysate at 40ug
Predicted bind size: 35KD
Observed bind size: 35KD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.