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Anti-Nkx2.5 Picoband Antibody

Catalog # ABO11984

Specification

Anti-Nkx2.5 Picoband Antibody - 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.

Anti-Nkx2.5 Picoband Antibody - 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 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human, Mouse

Subcellular Localization
Nucleus .

Tissue Specificity
Expressed only in the heart.

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 r˚Constitution, 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.

Anti-Nkx2.5 Picoband Antibody - 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.

Anti-Nkx2.5 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Nkx2.5 Picoband Antibody - Images

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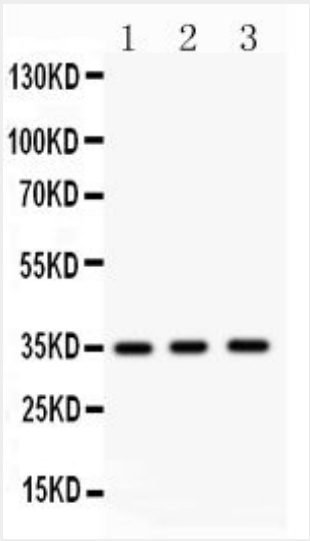

Anti- NKX2 Picoband antibody, ABO11984, Western blottingAll lanes: Anti NKX2 (ABO11984) at 0.5ug/mlLane 1: Mouse Spleen Tissue Lysate at 50ugLane 2: Mouse Cardiac Muscle Tissue Lysate at 50ugLane 3: HELA Whole Cell Lysate at 40ugPredicted bind size: 35KDObserved bind size: 35KD

Anti-Nkx2.5 Picoband Antibody - 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.