10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Mouse Nkx2-5 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21222C

Specification

Mouse Nkx2-5 Antibody (Center) - Product Information

Application	**IF, WB, IHC-P-Leica, FC,E**
Primary Accession	P42582
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**98-133**

Mouse Nkx2-5 Antibody (Center) - Additional Information

Gene ID 18091

Other Names
Homeobox protein Nkx-25, Cardiac-specific homeobox, Homeobox protein CSX, Homeobox protein NK-2 homolog E, Nkx2-5, Csx, Nkx-25, Nkx2e

Target/Specificity
This mouse Nkx2-5 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 98-133 amino acids from the Central region of mouse Nkx2-5.

Dilution
IF~~1:25
WB~~1:1000
IHC-P-Leica~~1:500
FC~~1:25

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Mouse Nkx2-5 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Nkx2-5 Antibody (Center) - Protein Information

Name Nkx2-5

Synonyms Csx, Nkx-2.5, Nkx2e

Function Transcription factor required for the development of the heart and the spleen (PubMed:9584153, PubMed:16556915, PubMed:19483677, PubMed:22560297). During heart development, acts as a transcriptional activator of NPPA/ANF in cooperation with GATA4 (PubMed:9584153). May cooperate with TBX2 to negatively modulate expression of NPPA/ANF in the atrioventricular canal (PubMed:12023302). Binds to the core DNA motif of NPPA promoter (PubMed:19483677). 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 (By similarity).

Cellular Location
Nucleus.

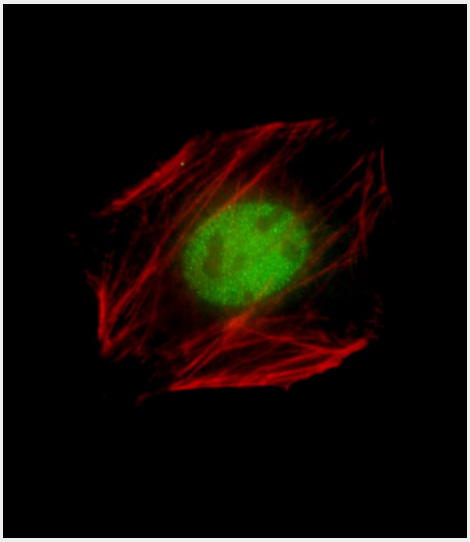
Tissue Location
Predominantly in the adult and embryonic heart, and to a lesser extent in lingual muscle, spleen and stomach

Mouse Nkx2-5 Antibody (Center) - Protocols

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

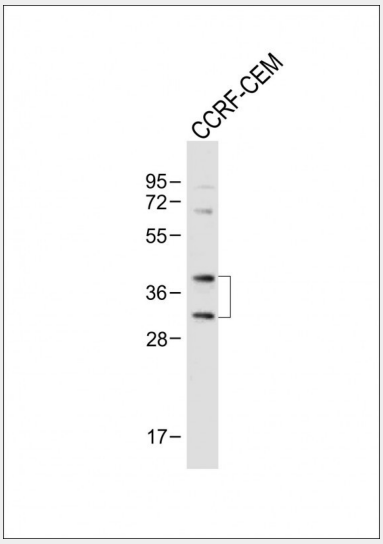
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Mouse Nkx2-5 Antibody (Center) - Images

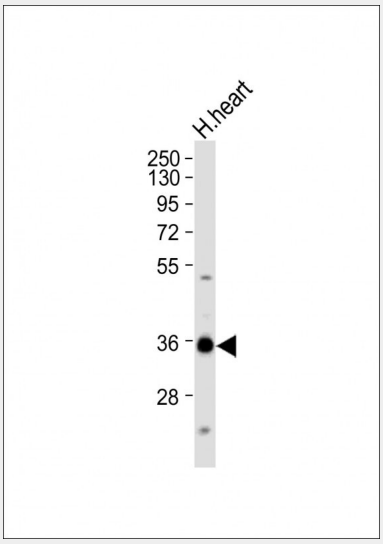


Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0. 1% Triton X-100 permeabilized C2C12 cells labeling Nkx2-5 with AP21222c at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-Rabbit IgG secondary antibody at 1/200 dilution (green). Immunofluorescence image

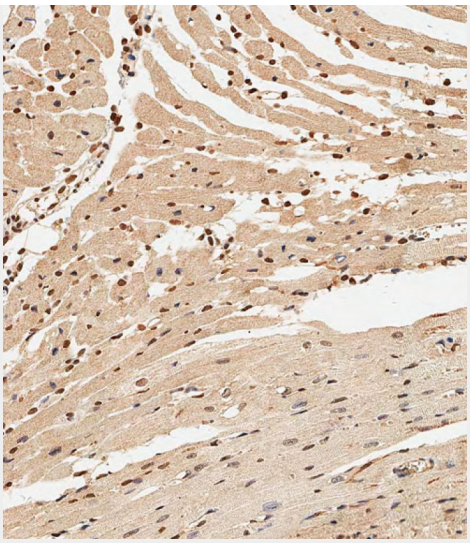
showing Nucleus staining on C2C12 cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin(red). The nuclear counter stain is DAPI (blue).



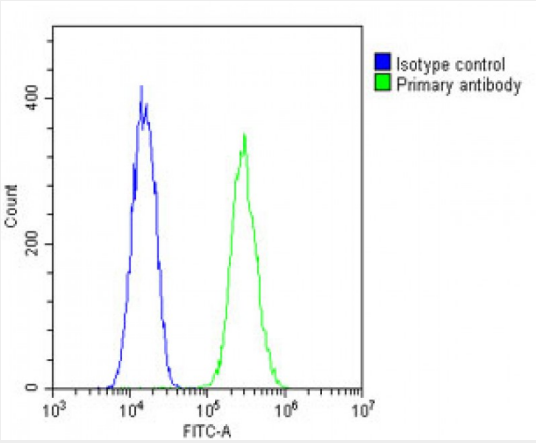
Anti-Mouse Nkx2-5 Antibody (Center) at 1:1000 dilution + CCRF-CEM whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 30-42 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Anti-Mouse Nkx2-5 Antibody (Center) at 1:1000 dilution + Human heart tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 34 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of paraffin-embedded Mouse heart tissue using AP21222c performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Overlay histogram showing C2C12 cells stained with AP21222c(green line). The cells were fixed with 2% paraformaldehyde and then permeabilized with 90% methanol for 10 min. The cells were then incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed at 1/200 dilution for 40 min at Room temperature. Isotype control antibody (blue line) was rabbit IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

Mouse Nkx2-5 Antibody (Center) - Background

Implicated in commitment to and/or differentiation of the myocardial lineage. Acts as a transcriptional activator of ANF in cooperation with GATA4. It is transcriptionally controlled by PBX1 and acts as a transcriptional repressor of CDKN2B. Together with PBX1, it is required for spleen development through a mechanism that involves CDKN2B repression.

Mouse Nkx2-5 Antibody (Center) - References

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