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Mouse Nkx2-5 Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5513

Product Information

Application	WB, IHC
Primary Accession	P42582
Reactivity	Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	34163
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	18091
Antigen Region	98-133
Other Names	Homeobox protein Nkx-25, Cardiac-specific homeobox, Homeobox protein CSX, Homeobox protein NK-2 homolog E, Nkx2-5, Csx, Nkx-25, Nkx2e
Dilution	WB~~1:2000 IHC~~1:100~500
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.
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.

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:16556915, PubMed:19483677, PubMed:22560297, PubMed:9584153). 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

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.

References

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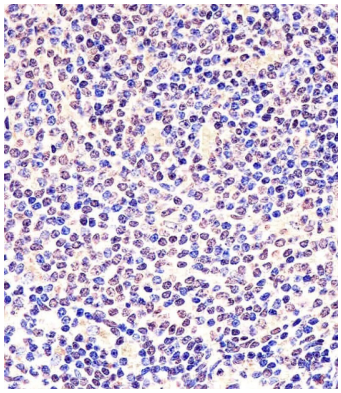
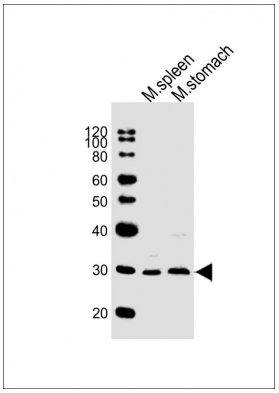
Searcy R.D.,et al.Development 125:4461-4470(1998).
Komuro I.,et al.Proc. Natl. Acad. Sci. U.S.A. 90:8145-8149(1993).
Kim Y.H.,et al.J. Biol. Chem. 273:25875-25879(1998).

Images



AW5513 staining Mouse Nkx2-5 in mouse spleen sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.



All lanes : Anti-Nkx2-5 Antibody (Center) at 1:2000 dilution Lane 1: mouse spleen lysates Lane 2: mouse stomach lysates 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.