

## Mouse Nkx2-5 Blocking Peptide (Center)

Synthetic peptide Catalog # BP21222c

## **Specification**

## Mouse Nkx2-5 Blocking Peptide (Center) - Product Information

Primary Accession

P42582

# Mouse Nkx2-5 Blocking Peptide (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**

The synthetic peptide sequence is selected from aa 98-113 of HUMAN Nkx2-5

#### **Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

### **Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

### Mouse Nkx2-5 Blocking Peptide (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:<a href="http://www.uniprot.org/citations/16556915" target="\_blank">16556915</a>, PubMed:<a href="http://www.uniprot.org/citations/19483677" target="\_blank">19483677</a>, PubMed:<a href="http://www.uniprot.org/citations/22560297" target="\_blank">22560297</a>, PubMed:<a href="http://www.uniprot.org/citations/9584153" target="\_blank">9584153</a>). During heart development, acts as a transcriptional activator of NPPA/ANF in cooperation with GATA4 (PubMed:<a href="http://www.uniprot.org/citations/9584153" target="\_blank">9584153</a>). May cooperate with TBX2 to negatively modulate expression of NPPA/ANF in the atrioventricular canal (PubMed:<a href="http://www.uniprot.org/citations/12023302" target="\_blank">12023302</a>). Binds to the core DNA motif of NPPA promoter (PubMed:<a href="http://www.uniprot.org/citations/19483677" target="\_blank">19483677</a>). Together with PBX1, required for spleen development through a mechanism that involves CDKN2B



repression (PubMed:<a href="http://www.uniprot.org/citations/22560297" target="\_blank">22560297</a>). 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 Blocking Peptide (Center) - Protocols

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

## • Blocking Peptides

Mouse Nkx2-5 Blocking Peptide (Center) - Images

## Mouse Nkx2-5 Blocking Peptide (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 Blocking Peptide (Center) - References

Lints T.J.,et al.Development 119:419-431(1993). Lints T.J.,et al.Development 119:969-969(1993). 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).