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

NKX2.5 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1319a

Specification

NKX2.5 Antibody - Product Information

Application	**WB, E**
Primary Accession	P52952
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**35kDa KDa**

Description
NKX2.5: NK2 transcription factor related, locus 5 (Drosophila), also known as CSX. It is a homeobox-containing transcription factor. This transcription factor functions in heart formation and development. Mutations in this gene cause atrial septal defect with atrioventricular conduction defect, and also tetralogy of Fallot, which are both heart malformation diseases. Mutations in this gene can also cause congenital hypothyroidism non-goitrous type 5, a non-autoimmune condition. Alternative splicing results in multiple transcript variants.

Immunogen
Purified recombinant fragment of human NKX2.5 expressed in E. Coli.

Formulation
Antibody are purified by protein G affinity chromatography.
Liquid in PBS containing 0.03% sodium azide.

NKX2.5 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

Dilution
WB~~1/500 - 1/2000
E~~N/A

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
NKX2.5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

NKX2.5 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.

NKX2.5 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

NKX2.5 Antibody - Images

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

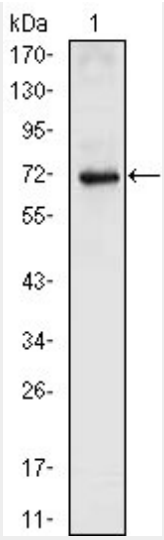

Figure 1: Western blot analysis using NKX2.5 mouse mAb against full-length NKX2.5 (aa1-324)-hIgGFc transfected HEK293 cell lysate (1).

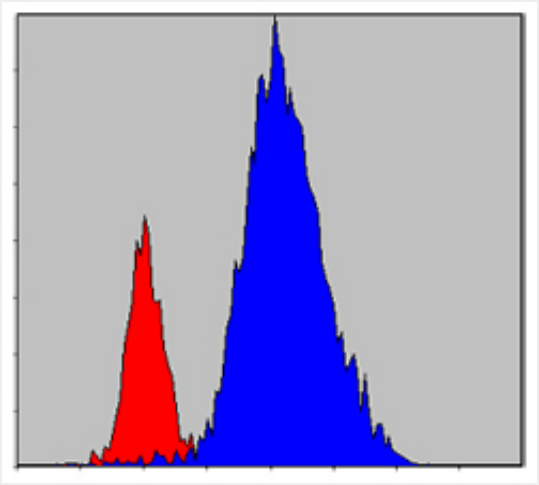

Figure 4: Flow cytometric analysis of Hela cells using JAK3 mouse mAb (blue) and negative control (red).

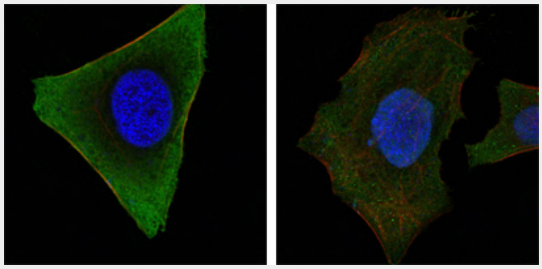

Figure 2: Confocal immunofluorescence analysis of Hela (left) and HepG2 (right) cells using JAK3 mouse mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

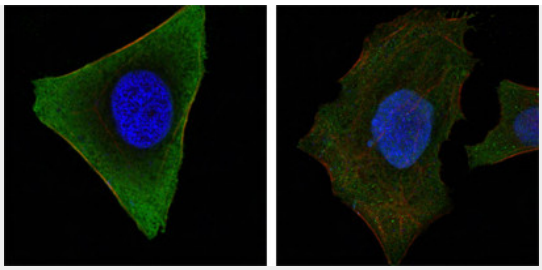

Figure 2: Confocal immunofluorescence analysis of Hela (left) and HepG2 (right) cells using anti-JAK3 mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

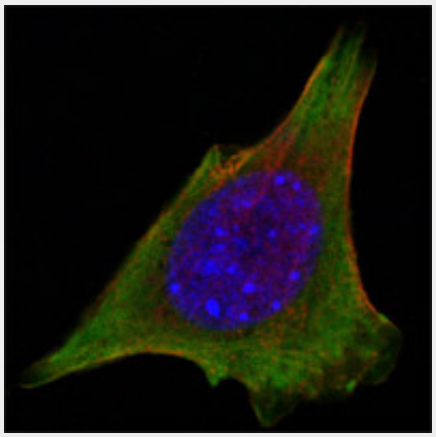

Figure 3: Confocal immunofluorescence analysis of 3T3-L1 cells using anti-JAK3 mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

NKX2.5 Antibody - References

1. Stem Cells Dev. 2005 Aug;14(4):425-39. 2. Cancer Res. 2003 Sep 1;63(17):5329-34. 3. Circ J. 2002 Jun;66(6):561-3.