10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Goat Anti-CSX1 / NKX2-5 Antibody

Peptide-affinity purified goat antibody
Catalog # AF1285a

Specification

Goat Anti-CSX1 / NKX2-5 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	P52952
Other Accession	NP_001159648, 1482, 18091 (mouse), 114109 (rat)
Reactivity	**Human, Mouse, Rat**
Predicted	**Dog, Cow**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**34918**

Goat Anti-CSX1 / 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

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

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
Goat Anti-CSX1 / NKX2-5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-CSX1 / 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.

Goat Anti-CSX1 / 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

Goat Anti-CSX1 / NKX2-5 Antibody - Images

AF1285a (0.3 µg/ml) staining of Mouse Heart lysate (35 µg protein in RIPA buffer). Detected by chemiluminescence.

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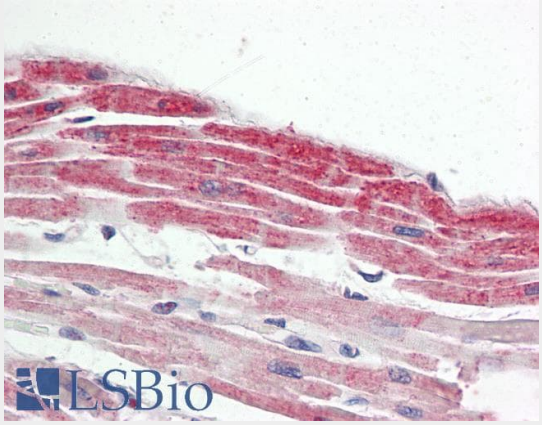
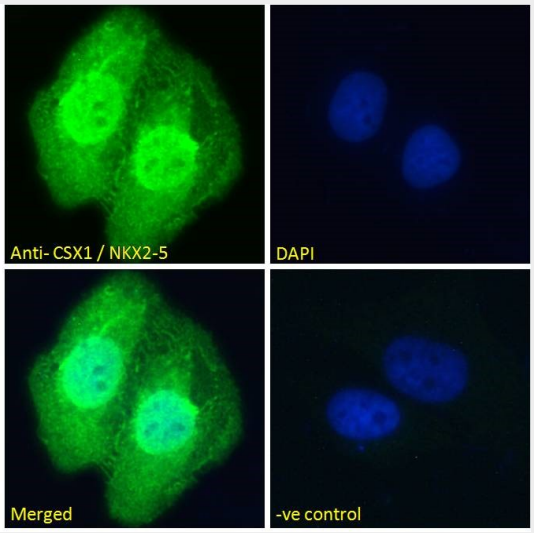
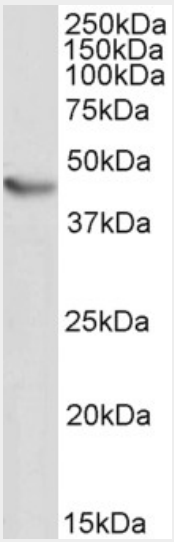


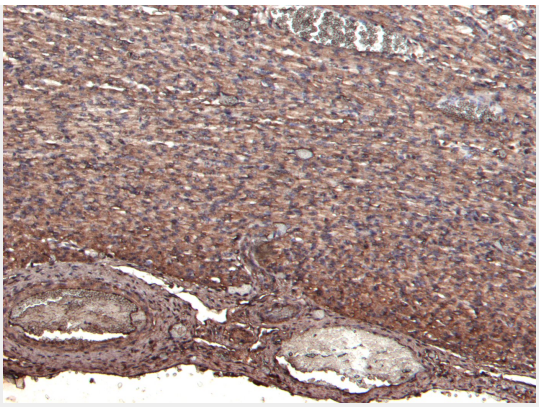
AF1285a (3.75 µg/ml) staining of paraffin embedded Human Heart. Steamed antigen retrieval with citrate buffer pH 6, AP-staining. **This data is from a previous batch, not on sale.**



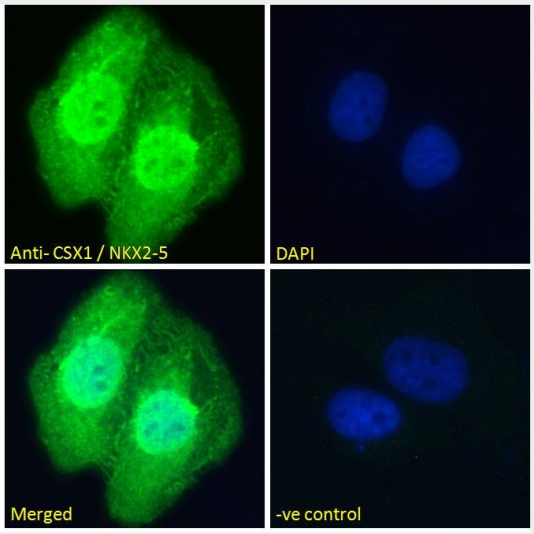
AF1285a Immunofluorescence analysis of paraformaldehyde fixed U2OS cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing nuclear and cytoplasmic staining. The nuclear stai



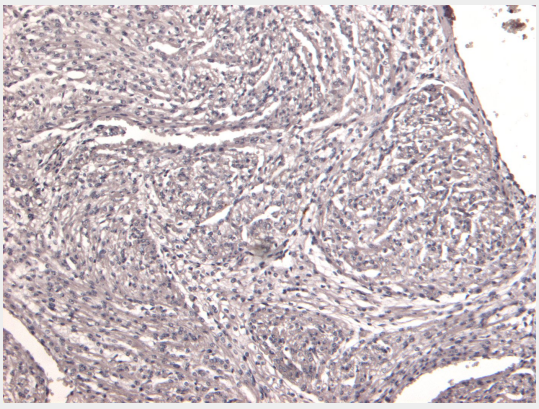
EB09412 (0.3µg/ml) staining of Mouse Heart lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.



EB09412 (4µg/ml) staining of paraffin embedded Human Heart. Heat induced antigen retrieval with citrate buffer pH 6, HRP-staining.



EB09412 Immunofluorescence analysis of paraformaldehyde fixed U2OS cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing nuclear and cytoplasmic staining. The nuclear stai



EB09412 Negative Control showing staining of paraffin embedded Human Heart, with no primary antibody.

Goat Anti-CSX1 / NKX2-5 Antibody - Background

This gene encodes 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.

Goat Anti-CSX1 / NKX2-5 Antibody - References

New mutations in ZFPM2/FOG2 gene in tetralogy of Fallot and double outlet right ventricle. De Luca A, et al. Clin Genet, 2010 Aug 2. PMID 20807224.
Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.
A whole genome association study of mother-to-child transmission of HIV in Malawi. Joubert BR, et al. Genome Med, 2010 Mar 1. PMID 20487506.
Mutational spectrum in the cardiac transcription factor gene NKX2.5 (CSX) associated with congenital heart disease. Stallmeyer B, et al. Clin Genet, 2010 Apr 20. PMID 20456451.
Transcription factor mutations and congenital hypothyroidism: systematic genetic screening of a population-based cohort of Japanese patients. Narumi S, et al. J Clin Endocrinol Metab, 2010 Apr. PMID 20157192.