

Rabbit anti-Human Nkx2.5/NKX2-5 Polyclonal Antibody | anti-NKX2-5 antibody

Anti-Nkx2.5/NKX2-5 Antibody Picoband

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA126067	Rabbit	Human	ELISA, Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Western Blot

PRODUCT SYNONYMS

Nkx2.5/NKX2-5; Polyclonal Antibody; Anti-Nkx2.5/NKX2-5 Antibody Picoband; anti-NKX2-5 antibody

PRODUCT SPECIFICATIONS

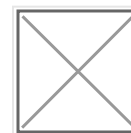
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (varies by lot)
Applicable Applications for anti-NKX2-5 antibody	ELISA, FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Immunogen	E Coli-derived human Nkx2.5/NKX2-5 recombinant protein (Position: K15-R132).
Preparation and Storage	Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.

IMAGES



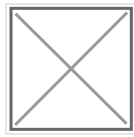
FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of 293T cells using anti-Nkx2.5/NKX2-5 antibody (AAA126067). Overlay histogram showing 293T cells stained with AAA126067 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Nkx2.5/NKX2-5 Antibody (AAA126067, 1 ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IF (Immunofluorescence)

Figure 2. IF analysis of Nkx2.5/NKX2-5 using anti-Nkx2.5/NKX2-5 antibody (AAA126067). Nkx2.5/NKX2-5 was detected in an immunocytochemical section of SiHa cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-Nkx2.5/NKX2-5 Antibody (AAA126067) overnight at 4 degree C. DyLight488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



WB (Western Blot)

Figure 1. Western blot analysis of Nkx2.5/NKX2-5 using anti-Nkx2.5/NKX2-5 antibody (AAA126067). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human U2OS whole cell lysates, Lane 2: human U251 whole cell lysates, Lane 3: human SiHa whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Nkx2.5/NKX2-5 antigen affinity purified polyclonal antibody (#AAA126067) at 0.5 ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Nkx2.5/NKX2-5 at approximately 35 kDa. The expected band size for Nkx2.5/NKX2-5 is at 35 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-NKX2-5 antibody	Homeobox protein Nkx-2.5, also known as NKX2E or CSX is a protein that in humans is encoded by the NKX2-5 gene. It is mapped to 5q35.1. Homeobox-containing genes play critical roles in regulating tissue-specific gene expression essential for tissue differentiation, as well as determining the temporal and spatial patterns of development. Nkx2.5 and Tbx5 directly bound to the promoter of the gene encoding cardiac-specific natriuretic peptide precursor type A (NPPA) in tandem, and both transcription factors showed synergistic activation. The cardiac homeobox protein Nkx2.5 is essential in cardiac development, and mutations in CSX (which encodes Nkx2.5) cause various congenital heart malformations.
Product Categories/Family for anti-NKX2-5 antibody	Primary Antibodies, Rabbit Polyclonal Antibodies

NCBI AND UNIPROT INFORMATION

NCBI GI #	260898750
NCBI GeneID	1482
NCBI Accession #	NP_001159647.1
NCBI GenBank Nucleotide #	NM_001166175.1
UniProt Accession #	P52952; A8K3K0; B4DNB6; E9PBU6
Molecular Weight	11,681 Da
NCBI Official Full Name	homeobox protein Nkx-2.5 isoform 2
NCBI Official Synonym Full Names	NK2 homeobox 5
NCBI Official Symbol	NKX2-5
NCBI Official Synonym Symbols	CSX; CSX1; VSD3; CHNG5; HLHS2; NKX2E; NKX2.5; NKX4-1
NCBI Protein Information	homeobox protein Nkx-2.5
UniProt Protein Name	Homeobox protein Nkx-2.5
UniProt Gene Name	NKX2-5
UniProt Synonym Gene Names	CSX; NKX2.5; NKX2E
UniProt Entry Name	NKX25_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

