**BACKGROUND**

Nkx-2.5, which is also designated cardiac specific homeobox protein (Csx), is a homeodomain-containing nuclear transcription protein of the Nkx-2 gene family. These transcriptional activators, which include thyroid transcription factor-1 (TTF-1), regulate the expression of tissue specific genes and are required for maintaining the differentiated phenotypes of various lineages. Nkx-2.5 is a homolog to the tinman protein expressed in *Drosophila*, and is essential for normal cardiovascular development. Expression of Nkx-2.5 during cardiomyogenesis is required for cardiac septation, in which a single atrium and ventricle are separated into four chambers. During embryonic development, Nkx-2.5 is also expressed in the foregut, thyroid, spleen and stomach, while in the adult expression is predominantly restricted to the heart. Mutations that disrupt Nkx-2.5 can result in atrial-septal defects, embryonic lethality and congenital heart disease.

**REFERENCE**


**CHROMOSOMAL LOCATION**

Genetic locus: NKX2-5 (human) mapping to 5q35.1; Nkx2-5 (mouse) mapping to 17 A3.3.

**SOURCE**

Nkx-2.5 (A-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 21-55 near the N-terminus of Nkx-2.5 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-376565 X, 200 µg/0.1 ml.

Nkx-2.5 (A-3) is available conjugated to agarose (sc-376565 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376565 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376565 PE), fluorescein (sc-376565 FITC), Alexa Fluor® 488 (sc-376565 AF488), Alexa Fluor® 546 (sc-376565 AF546), Alexa Fluor® 594 (sc-376565 AF594) or Alexa Fluor® 647 (sc-376565 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376565 AF680) or Alexa Fluor® 790 (sc-376565 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376565 P (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**APPLICATIONS**

Nkx-2.5 (A-3) is recommended for detection of Nkx-2.5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000; immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Nkx-2.5 siRNA (h): sc-36075, Nkx-2.5 siRNA (m): sc-36076, Nkx-2.5 shRNA Plasmid (h): sc-36075-SH, Nkx-2.5 shRNA Plasmid (m): sc-36076-SH, Nkx-2.5 shRNA (h) Lentiviral Particles: sc-36075-V and Nkx-2.5 shRNA (m) Lentiviral Particles: sc-36076-V.

Nkx-2.5 (A-3) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Nkx-2.5: 40 kDa.


**DATA**

![Western Blot Analysis](image)

**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.