

Nkx-2.5 (h2): 293T Lysate: sc-159566

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.

REFERENCES

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8. Xie, C.Q., et al. 2007. Transplantation of human undifferentiated embryonic stem cells into a myocardial infarction rat model. *Stem Cells Dev.* 16: 25-29.
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STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: NKX2-5 (human) mapping to 5q35.1.

PRODUCT

Nkx-2.5 (h2): 293T Lysate represents a lysate of human Nkx-2.5 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Nkx-2.5 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Nkx-2.5 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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