

## Product datasheet for **RG228051**

### Nkx2.5 (NKX2-5) (NM\_001166175) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Nkx2.5 (NKX2-5) (NM\_001166175) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** NKX2-5  
**Synonyms:** CHNG5; CSX; CSX1; HLHS2; NKX2.5; NKX2E; NKX4-1; VSD3  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG228051 representing NM\_001166175  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTTCCCGAGCCCTGCTCTCACGCCACGCCCTTCTCAGTCAAAGACATCCTAAACCTGGAACAGCAGC  
 AGCGCAGCCTGGCTGCCCGGAGAGCTCTGCCCCCTGGAGGCGACCCTGGCGCCCTCTCTGCAT  
 GCTGGCCGCTTCAAGCCAGAGGCTACGCTGGGCCGAGGGCTGCGCCGGCCCTCCAGAGCTGCGC  
 GCAGAGCTGGGCCGCGCCTTACCGGCAAGTGTGCGTCTGCCTTCCCGCCGCCCGCCCTTCTATC  
 CAGTGCCTACAGCGACCCGACCCAGCCAAGGACCCTAGAGCCGAAAAGAAAGCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG228051 representing NM\_001166175  
 Red=Cloning site Green=Tags(s)  
 MFPSPALTPFPVSKDILNLEQQQRSLAAGEL SARLEATLAPSSCMLAAFKEAYAGPEAAAPGLPELR  
 AELGRAPSPAKCASAFPAPAFYPRAYSDPDPKDPRAEKKA

**TRTRPLE** - GFP Tag - V

**Restriction Sites:** Sgfl-MluI

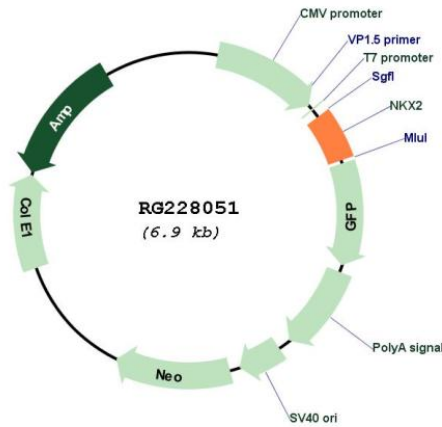


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Cloning Scheme:



Plasmid Map:



ACCN: NM\_001166175

ORF Size: 336 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001166175.2</a>
<b>RefSeq Size:</b>	1961 bp
<b>RefSeq ORF:</b>	339 bp
<b>Locus ID:</b>	1482
<b>UniProt ID:</b>	<a href="#">P52952</a>
<b>Cytogenetics:</b>	5q35.1
<b>Protein Families:</b>	Transcription Factors
<b>Gene Summary:</b>	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. [provided by RefSeq, Oct 2009]