

Product datasheet for MR222563

Nkx2 (NM_001146198) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Nkx2 (NM_001146198) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Nkx2
Synonyms: AV026640; Nkx2.1; T/EBP; Titf1; Ttf-1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR222563 representing NM_001146198
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCGATGAGTCCAAGCACACGACTCCGTTCTCAGTGTCTGACATCTTGAGTCCCCTGGAGGAAAGCT
ACAAGAAAGTGGGCATGGAGGGCGCGGCTCGGGCTCCGCTCGCAGCGTACAGACAGGGCCAGGCGGC
CCCACCGCCGCGCCATGCAGCAGCACGCCGTGGGGACCACGGCGCGTCACCGCCGCTACCACATG
ACGGCGGGGGGTGCCAGCTCTCGACTCCGCGTGGGGGCTACTGCAACGGCAACCTGGGAACA
TGAGCGAGCTGCCGCTTACCAGGACACCATGCGGAACAGCGCTTCGGGCCCGGATGGTACGGCGCAA
CCCAGACCCGCGCTTCCCGCCATCTCCGCTTATGGGCCCGGCGAGCGGCATGAATATGAGTGGCATG
GGCGGCTGGGCTCGCTGGGGGACGTGAGCAAGAACATGGCCCCGCTGCCAGTGCGCCCGCGGAAGC
GCCGGGTGCTTCTCCAGGCGCAGGTGTACGAGCTCGAGCGACGTTTCAAGCAACAGAAGTACCTGTC
GGCGCCGAGCGCGAGCATCTGGCCAGCATGATCACCTGACACCCACGCAGGTCAAGATCTGGTCCAG
AACCACCGCTACAAGATGAAGCGCCAGGCTAAGGACAAGGCGCGCAGCAACAACCTGCAGCAGGACAGCG
GCGGCGCGGAGGCGCGGTGGCGGTGCGGGATGCCCGCAGCAGCAGCAAGCTCAGCAGCAGTCCGCCG
CCGGGTGGCGGTGCCGCTCTAGTCAAAGACGGCAAACCTGCCAGGCGGGCGCCCTGCCCGGGAGCC
GCAAGCTGCAAAGCCACGCGCAGCAACAAGCTCAGCAGCAGGCGCAGGCGGCGCAAGCGGTGCCGCG
CCATCTCAGTGGGCAGCGGTGGCGGGTCTAGGAGCACACCCAGGCCACCGCGGCGCAGCGCAGGGCA
GTCCCGGACCTGGCGCACCGCAGCCAGCCCGCGGGGCTGCAGGGCCAGGTCTCCAGCCTATCCCAT
CTGAACCTCTCGGGCTCGGACTATGGCCCATGTCTTGTCTACCTTGTCTTATGGTCGGACCTGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >MR222563 representing NM_001146198
 Red=Cloning site Green=Tags(s)

MSMSPKHTTFFSVSDILSPLEESYKKVGMEGGGLGAPLAAYRQQQAAPPAAAMQQHAVGHHGAVTAAAYHM
 TAAGVPLSHSAVGGYCNGNLGNMSELPYQDTRNSASGPGWYGANPDRFPAISRFGPASGMNMSGM
 GGLGSLGDVSKNMAPLPSAPRRKRRVLFSAQVYELERRFKQKYL SAPERHLASMIHL TPTQVKIWFQ
 NHRYKMKRQAKDKAAQQQLQDSSGGGGGGGACGPQQQQAQQSPRRVAVPVL VKDGPQAGAPPGA
 ASLQSHAQQQAQAQAAAAAISVSGGGAGLGAHPGHQPGSAGQSPDLAHHAAASPAGLQGVSSLSH
 LNSSGSDYGAMSCSTLLYGRTW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001146198

ORF Size: 1116 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](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: 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).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

RefSeq: [NM_001146198.1](#), [NP_001139670.1](#)

RefSeq Size: 2265 bp

RefSeq ORF: 1119 bp

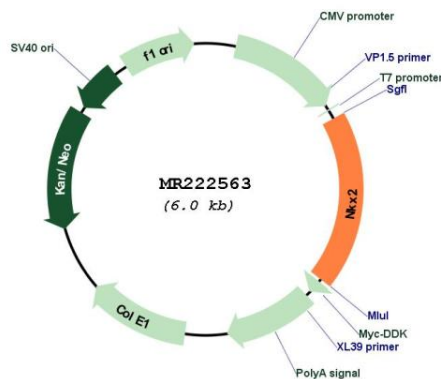
Locus ID: 21869

Cytogenetics: 12 24.42 cM

MW: 38.6 kDa

Gene Summary: Transcription factor that binds and activates the promoter of thyroid specific genes such as thyroglobulin, thyroperoxidase, and thyrotropin receptor. Crucial in the maintenance of the thyroid differentiation phenotype. May play a role in lung development and surfactant homeostasis. Forms a regulatory loop with GRHL2 that coordinates lung epithelial cell morphogenesis and differentiation (PubMed:22955271). Activates the transcription of GNRHR and plays a role in enhancing the circadian oscillation of its gene expression. Represses the transcription of the circadian transcriptional repressor NR1D1 (PubMed:22356123). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR222563