

## Product datasheet for **RC211443**

### **HNF 4 alpha (HNF4A) (NM\_001030003) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	HNF 4 alpha (HNF4A) (NM_001030003) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HNF 4 alpha
Synonyms:	FRTS4; HNF4; HNF4a7; HNF4a8; HNF4a9; HNF4alpha; MODY; MODY1; NR2A1; NR2A21; TCF; TCF-14; TCF14
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC211443 representing NM\_001030003  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGTCAGCGTGAACCGCCCCCTCGGGCTCCAGTGGAGAGTTCTTACGACACGTCCCCATCAGAAGGCA  
 CCAACCTCAACGCGCCCAACAGCCTGGGTGTACGCGCCCTGTGTGCCATCTGCGGGGACCGGCCACGGG  
 CAAACACTACGGTGCCTCGAGCTGTGACGGCTGCAAGGGCTTCTCCGGAGGAGCGTGCGGAAGAACCAC  
 ATGTACTCCTGCAGATTTAGCCGGCAGTGCCTGGTGGACAAAGACAAGAGGAACCAGTGCCTACTGCA  
 GGCTCAAGAAATGCTTCCGGGTGGCATGAAGAAGGAAGCCGTCAGAAATGAGCGGGACCGGATCAGCAC  
 TCGAAGGTCAAGCTATGAGGACAGCAGCCTGCCCTCCATCAATGCGCTCCTGCAGCGGAGGTCTGTCC  
 CGACAGATCACCTCCCCGTCTCCGGGATCAACGGCGACATTCCGGCGAAGAAGATTGCCAGCATCGCAG  
 ATGTGTGTGAGTCCATGAAGGAGCAGCTGCTGGTTCTCGTTGAGTGGGCCAAGTACATCCAGCTTTCTG  
 CGAGCTCCCCCTGGACGACCAGGTGGCCCTGCTCAGAGCCATGCTGGCGAGCACCTGCTGCTCGGAGCC  
 ACCAAGAGATCCATGGTGTCAAGGACGTGCTGCTCCTAGGCAATGACTACATTGTCCCTCGGCACTGCC  
 CGGAGCTGGCGGAGATGAGCCGGGTGCCATACGCATCCTTGACGAGCTGGTGTGCCCTTCCAGGAGCT  
 GCAGATCGATGACAATGAGTATGCCTACCTCAAAGCCATCATCTTCTTTGACCCAGATGCCAAGGGGCTG  
 AGCGATCCAGGGAAGATCAAGCGCTGCGTTCCAGGTGCAGGTGAGCTTGGAGGACTACATCAACGACC  
 GCCAGTATGACTCGCGTGGCCGCTTTGGAGAGCTGCTGCTGCTGCCACCTTGACAGCATCACCTG  
 GCAGATGATCGAGCAGATCCAGTTCATCAAGCTCTTCCGCATGGCCAAGATTGACAACCTGTTGCAGGAG  
 ATGCTGCTGGGAGGTCCCCAGCGATGCACCCATGCCACCACTCACCTCAGCAACGAGCAGATGTCCAC  
 AACATATGGGAACCAACGTCATCGTTGCCAACACAATGCCACTCACCTCAGCAACGAGCAGATGTCCAC  
 CCCTGAGACCCACAGCCCTCACCGCCAGGTGGCTCAGGGTCTGAGCCCTATAAGCTCCTGCCGGGAGCC  
 GTGCCACAATCGTCAAGCCCTCTCTGCCATCCCCAGCCGACCATCACCAAGCAGGAAGTTATC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC211443 representing NM\_001030003  
 Red=Cloning site Green=Tags(s)

MVSVNAPL GAPVESSYDTSPSEGTNLNAPNSLGVSAICGDRATGKHYGASSCDGCKGFFRRSVRKNH  
 MYSCRFSRQCVDKDRNQCRYCRLKCFRAGMKKEAVQNERDRISTRSSYEDSSLPSINALLQAEVLS  
 RQITSPVSGINGDIRAKKIASIADVCEMKEQLLVLEWAKYIPAFCELPDQVALLRAHAGEHLLLGA  
 TKRSMVFKDVLVLLGNDYIVPRHCPPELAEMSRVSRILDELVL PFQELQIDDNEYAYLKAIIFDPDAKGL  
 SDPGKIKRLRSQVQSLEDYINDRQYDSRGRFGELLLLLPTLQSIWQMIQIQF IKLFGMAKIDNLLQE  
 MLLGGSPSDAPHAHPLHPLMQEHMGTNVIVANTMPTHL SNGQMSTPETPQPSPPPGGSGSEPYKLLPGA  
 VATIVKPLSAIPQPTITKQEVI

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6705\\_f11.zip](https://cdn.origene.com/chromatograms/mk6705_f11.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001030003

**ORF Size:** 1326 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\\_001030003.3](#)

**RefSeq Size:** 1339 bp

**RefSeq ORF:** 1329 bp

**Locus ID:** 3172

**UniProt ID:** [P41235](#)

**Cytogenetics:** 20q13.12

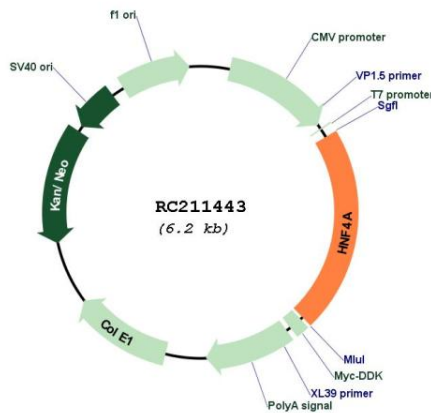
**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Nuclear Hormone Receptor, Transcription Factors

**Protein Pathways:** Maturity onset diabetes of the young

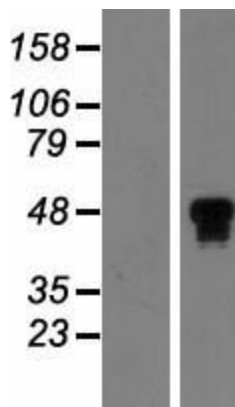
**MW:** 48.8 kDa

**Gene Summary:** The protein encoded by this gene is a nuclear transcription factor which binds DNA as a homodimer. The encoded protein controls the expression of several genes, including hepatocyte nuclear factor 1 alpha, a transcription factor which regulates the expression of several hepatic genes. This gene may play a role in development of the liver, kidney, and intestines. Mutations in this gene have been associated with monogenic autosomal dominant non-insulin-dependent diabetes mellitus type I. Alternative splicing of this gene results in multiple transcript variants encoding several different isoforms. [provided by RefSeq, Apr 2012]

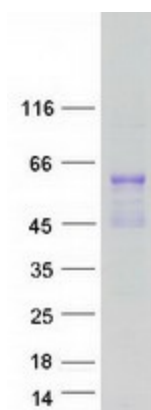
**Product images:**



Circular map for RC211443



Western blot validation of overexpression lysate (Cat# [LY422283]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211443 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HNF4A protein (Cat# [TP311443]). The protein was produced from HEK293T cells transfected with HNF4A cDNA clone (Cat# RC211443) using MegaTran 2.0 (Cat# [TT210002]).