

Product datasheet for **RC214914**

HNF 4 alpha (HNF4A) (NM_178849) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HNF 4 alpha (HNF4A) (NM_178849) 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:

>RC214914 representing NM_178849
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCGACTCTCCAAAACCCTCGTCGACATGGACATGGCCGACTACAGTGTGCACTGGACCCAGCCTACA
 CCACCCTGGAATTTGAGAATGTGCAGGTGTTGACGATGGGCAATGACACGTCCCCATCAGAAGGCACCAA
 CCTCAACGCGCCCAACAGCCTGGGTGTCAGCGCCCTGTGTGCCATCTGCGGGGACCGGGCCACGGGCAAA
 CACTACGGTGCCTCGAGCTGTGACGGCTGCAAGGGCTTCTCCGGAGGAGCGTGCGAAGAACCACATGT
 ACTCCTGCAGATTTAGCCGGCAGTGCCTGGTGGACAAAGACAAGAGGAACCAGTGCCGCTACTGCAGGCT
 CAAGAAATGCTTCCGGGCTGGCATGAAGAAGGAAGCCGTCAGAATGAGCGGGACCGGATCAGCACTCGA
 AGGTCAAGCTATGAGGACAGCAGCCTGCCCTCCATCAATGCGCTCCTGCAGGGGAGGTCTGTCCCAGC
 AGATCACCTCCCCGCTCCTGGGATCAACGGCGACATTCGGGCGAAGAAGATTGCCAGCATCGCAGATGT
 GTGTGAGTCCATGAAGGAGCAGTGTCTGGTTCTCGTTGAGTGGGCAAGTACATCCAGCTTTCTGCGAG
 CCCCCCTGGACGACCAGGTGGCCCTGCTCAGAGCCCATGCTGGCGAGCACCTGTGCTCGGAGCCACCA
 AGAGATCCATGGTGTTC AAGGACGTGCTGCTCCTAGGCAATGACTACATTGTCCCTCGGCACTGCCCGGA
 GCTGGCGGAGATGAGCCGGGTGCCATACGCATCCTTGACGAGCTGGTGTGCCCTTCCAGGAGCTGCAG
 ATCGATGACAATGAGTATGCCTACCTCAAAGCCATCATCTTCTTGACCCAGATGCCAAGGGGCTGAGCG
 ATCCAGGGAAGATCAAGCGGCTGCGTTCACAGGTGCAGGTGAGCTTGAGGACTACATCAACGACCGCCA
 GTATGACTCGCGTGGCCGCTTTGGAGAGCTGCTGCTGCTGCCACCTTGACAGCATCACCTGGCAG
 ATGATCGAGCAGATCCAGTTCATCAAGCTCTTCGGCATGGCCAAGATTGACAACCTGTTGCAGGAGATGC
 TGCTGGGAGGGTCCCCAGCGATGCACCCCATGCCACCACCCCTGCACCCTCACCTGATGCAGGAACA
 TATGGGAACCAACGTCATCGTTGCCAACACAATGCCCACTCACCTCAGCAACGGACAGATGCCACCCCT
 GAGACCCACAGCCCTCACCGCCAGGTGGCTCAGGGTCTGAGCCCTATAAGCTCCTGCCGGGAGCCGTCG
 CCACAATCGTCAAGCCCTCTCTGCCATCCCCAGCCGACCATACCAAGCAGGAAGTTATC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCTGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214914 representing NM_178849
 Red=Cloning site Green=Tags(s)

MRLSKTLVDMADYSAALDPAYTTLEFENVQVLTMGNDTSPSEGTNLNAPNSLGVLSALCAICGDRATGK
 HYGASSCDGCKGFFRRSVRKNHMYSCRFSRQCVVDKDRNQCRYCRLKKCFRAGMKKEAVQNERDRISTR
 RSSYEDSSLPSINALLQAEVLSRQITSPVSGINGDIRAKKIASIADVCESMKEQLLVLEWAKYIPAFCE
 LPLDDQVALLRAHAGEHLLL GATKRSMVFKDVLVLLGNDYIVPRHCPELAEMSRVSIIRILDELVLPSRSCR
 SMTMSMPTSKPSSSLTQMPRG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

ACCN: NM_178849

ORF Size: 1392 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

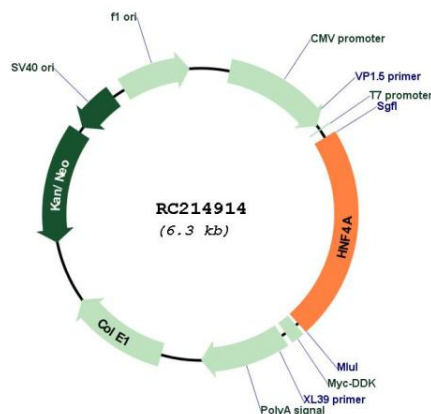
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

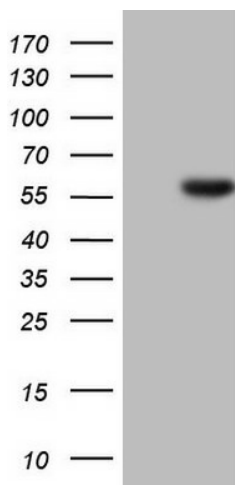
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the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

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_178849.3</u>
RefSeq Size:	4707 bp
RefSeq ORF:	1395 bp
Locus ID:	3172
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:	51.6 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]

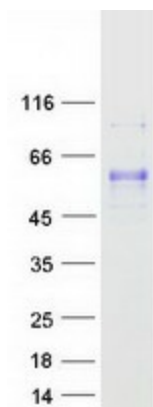
Product images:



Circular map for RC214914



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY HNF4A (Cat# RC214914, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-HNF4A(Cat# [TA806582]).



Coomassie blue staining of purified HNF4A protein (Cat# [TP314914]). The protein was produced from HEK293T cells transfected with HNF4A cDNA clone (Cat# RC214914) using MegaTran 2.0 (Cat# [TT210002]).