

Product datasheet for **RG216531**

HNF 4 alpha (HNF4A) (NM_175914) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HNF 4 alpha (HNF4A) (NM_175914) Human Tagged ORF Clone
Tag:	TurboGFP
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-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG216531 representing NM_175914
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGTCAGCGTGAACCGCCCCCTCGGGCTCCAGTGGAGAGTTCTTACGACACGTCCCCATCAGAAGGCA
 CCAACCTCAACGCGCCCAACAGCCTGGGTGTACGCGCCCTGTGTGCCATCTGCGGGGACCGGCCACGGG
 CAAACACTACGGTGCCTCGAGCTGTGACGGCTGCAAGGGCTTCTCCGGAGGAGCGTGCGGAAGAACCAC
 ATGTACTCCTGCAGATTTAGCCGGCAGTGCCTGGTGGACAAGACAAGAGGAACCAGTGCCGCTACTGCA
 GGCTCAAGAAATGCTTCCGGGTGGCATGAAGAAGGAAGCCGTCCAGAATGAGCGGGACCGGATCAGCAC
 TCGAAGGTCAAGCTATGAGGACAGCAGCCTGCCCTCCATCAATGCGCTCCTGCAGCGGAGGTCTGTCC
 CGACAGATCACCTCCCCGTCTCCGGGATCAACGGCGACATTCCGGCGAAGAAGATTGCCAGCATCGCAG
 ATGTGTGTGAGTCCATGAAGGAGCAGCTGCTGGTTCTCGTTGAGTGGGCCAAGTACATCCAGCTTTCTG
 CGAGCTCCCCCTGGACGACCAGGTGGCCCTGCTCAGAGCCATGCTGGCGAGCACCTGCTGCTCGGAGCC
 ACCAAGAGATCCATGGTGTCAAGGACGTGCTGCTCCTAGGCAATGACTACATTGTCCCTCGGCACTGCC
 CGGAGCTGGCGGAGATGAGCCGGGTGCCATACGCATCCTTGACGAGCTGGTGTGCCCTTCCAGGAGCT
 GCAGATCGATGACAATGAGTATGCCTACCTCAAAGCCATCATCTTCTTTGACCCAGATGCCAAGGGGCTG
 AGCGATCCAGGGAAGATCAAGCGCTGCGTTCCAGGTGCAGGTGAGCTTGGAGGACTACATCAACGACC
 GCCAGTATGACTCGCGTGGCCGCTTTGGAGAGCTGCTGCTGCTGCCACCTTGACAGAGCATCACCTG
 GCAGATGATCGAGCAGATCCAGTTCATCAAGCTCTTCCGCATGGCCAAGATTGACAACCTGTTGCAGGAG
 ATGCTGCTGGGAGGTCCCCAGCGATGCACCCATGCCACCACCCCTGCACCCTCACCTGATGCAGG
 AACATATGGGAACCAACGTCATCGTTGCCAACACAATGCCACTCACCTCAGAACGGACAGATGTGTGA
 GTGGCCCCGACCCAGGGACAGGCAGCCACCCCTGAGACCCACAGCCCTCACCGCCAGGTGGCTCAGGG
 TCTGAGCCCTATAAGCTCCTGCCGGGAGCGCTGCCACAATCGTCAAGCCCTCTCTGCCATCCCCCAGC
 CGACCATACCAAGCAGGAAGTTATC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG216531 representing NM_175914
 Red=Cloning site Green=Tags(s)

MVSVNAPLGAPVESSYDTSPSEGTNLNAPNSLGVSAICAIGDRATGKHYGASSCDGCKGFFRRSVRKNH
 MYSCRFSRQCVDKDRNQCRYCRLKCFRAGMKKEAVQNERDRISTRSSYEDSSLPSINALLQAEVLS
 RQITSPVSGINGDIRAKKIASIADVCEMKEQLLVLEWAKYIPAFCELPDQVALLRAHAGEHLLLGA
 TKRSMVFKDVLVLLGNDYIVPRHCPPELAEMSRVSRILDELVLPFQELQIDDNEYAYLKAIIFDPAKGL
 SDPGKIKRLRSQVQSLEDYINDRQYDSRGRFGELLLLLPTLQSIWQMIQIQFIKLFMAKIDNLLQE
 MLLGGSPSDAPHAHPLHPLMQEHMGTNVIVANTMPTHL SNGQMCEWPRPRGQAATPETPQPSPPGSG
 SEPYKLLPGAVATIVKPLSAIPQPTITKQEVI

TRTRPLE – GFP Tag – V

Chromatograms:

https://cdn.origene.com/chromatograms/ja3036_h12.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_175914

ORF Size: 1356 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.

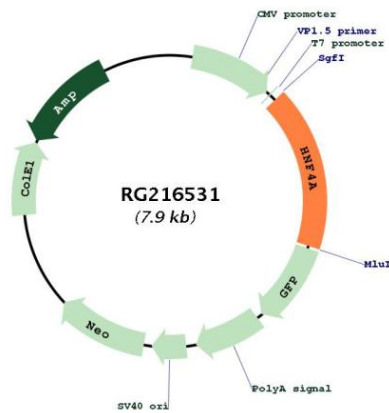
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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.

RefSeq: [NM_175914.4](#)

RefSeq Size:	1369 bp
RefSeq ORF:	1359 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
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 RG216531