

Product datasheet for **RG217863**

HNF 4 alpha (HNF4A) (NM_000457) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HNF 4 alpha (HNF4A) (NM_000457) 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:

>RG217863 representing NM_000457
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTGTGAACCGTCAGAATTTTG
 TAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGAGAGGGCACTGGGAGGAGGAGTGGGAGG
 GCGGAGGGCGGGGCTTCGGGGTGGGCGCCAGGGTAGGGCAGGTGGCCGCGCGTGGAGGCAGGGAGA
 ATGCGACTCTCCAAAACCTCGTCGACATGGACATGGCCGACTACAGTGTGCACTGGACCCAGCCTACA
 CCACCCTGGAATTTGAGAATGTGACAGGTGTTGACGATGGGCAATGACACGTCCCCATCAGAAGGCACCAA
 CCTCAACGCGCCCAACAGCCTGGGTGTACGCGCCTGTGTCCATCTGCGGGGACCGGGCCAGGGCAA
 CACTACGGTGCCTCGAGCTGTACGGCTGCAAGGGCTTCTCCGGAGGAGCGTGGGAAGAACCACATGT
 ACTCCTGCAGATTTAGCCGGCAGTGCCTGGTGGACAAAGACAAGGAACCAAGTCCGCTACTGCAGGCT
 CAAGAAATGCTTCCGGGCTGGCATGAAGAAGGAAGCCGTCAGAATGAGCGGGACCGGATCAGCACTCGA
 AGGTCAAGCTATGAGGACAGCAGCTGCCCTCCATCAATGCGCTCCTGCAGGCGGAGTCCCTGTCCCAGC
 AGATCACCTCCCCGCTCCGGGATCAACGCGCATTCCGGGCGAAGAAGATTGCCAGCATCGCAGATGT
 GTGTGAGTCCATGAAGGAGCAGCTGCTGTTCTCGTTGAGTGGGCCAAGTACATCCCAGCTTTCTGCGAG
 CTCCCCCTGGACGACCAGGTGGCCCTGCTCAGAGCCCATGCTGGCGAGCACCTGCTGCTCGGAGCCACCA
 AGAGATCCATGGTGTTC AAGGACGTGCTGCTCCTAGGCAATGACTACATTGTCCCTCGGCACTGCCCGGA
 GCTGGCGGAGATGAGCCGGGTGCCATACGCATCCTTGACGAGCTGGTGTGCCCTTCCAGGAGCTGCAG
 ATCGATGACAATGAGTATGCCTACCTCAAAGCCATCATCTTCTTGACCCAGATGCCAAGGGGCTGAGCG
 ATCCAGGAAGATCAAGCGGCTGCGTCCAGGTGCAGGTGAGCTTGGAGGACTACATCAACGACCGCCA
 GTATGACTCGCGTGGCCGCTTTGGAGAGCTGCTGCTGCTGCCACCTTGACAGAGCATCACTGGCAG
 ATGATCGAGCAGATCCAGTTCATCAAGCTCTTCGGCATGGCCAAGATTGACAACCTGTTGCAGGAGATGC
 TGCTGGGAGGGTCCCCAGCGATGCACCCCATGCCACCACCCCTGCACCCTCACCTGATGCAGGAACA
 TATGGGAACCAACGTCATCGTTGCCAACACAATGCCCACTCACCTCAGCAACGGACAGATGTGTGAGTGG
 CCCCAGCCAGGGGACAGGCAGCCACCCCTGAGACCCACAGCCCTCACCGCCAGGTGGCTCAGGGTCTG
 AGCCCTATAAGCTCCTGCCGGGAGCCGTCGCCACAATCGTCAAGCCCTCTCTGCCATCCCCAGCCGAC
 CATCACCAAGCAGGAAGTTATC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG217863 representing NM_000457
 Red=Cloning site Green=Tags(s)

MGRRVRWEVYISRARLVNRQNFVIRLTIGRPRIRHERGHWEAVGGRRAGAFVGAQGRAGGRGVEAGR
 MRLSKTLVDMADYSAALDPAYTTLEFENVQVLTMGNDTSPSEGTNLNAPNSLGVLSALCAICGDRATGK
 HYGASSCDGCKGFFRRSVRKNHMYSCRFSRQCVVDKDKRNQCRYCRLKKCFRAGMKKEAVQNERDRISTR
 RSYEDSSLPSINALLQAEVLSRQITSPVSGINGDIRAKKIASIADVCEMKEQLLVLEWAKYIPAFCE
 LPLDDQVALLRAHAGEHLLLGATKRSVMFKDVLVLLGNDYIVPRHCPLEAEMSRVSIIRILDELVLPFQELQ
 IDDNEYAYLKAIIFDFDPAKGLSDPGKIKRLRSQVQVSLLEDYINDRQYDSRGRFGELLLLLPTLQSIWQ
 MIEQIQFIKLFGMAKIDNLLQEMLLGGSPSDAPHAHPLHPLMQEHMGTNVIVANTMPHLSNGQMCEW
 PRPRGQAATPETPQPSPGGSGSEPKLLPGAVATIVKPLSAIPQPTITKQEVI

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_000457

ORF Size: 1632 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](#)

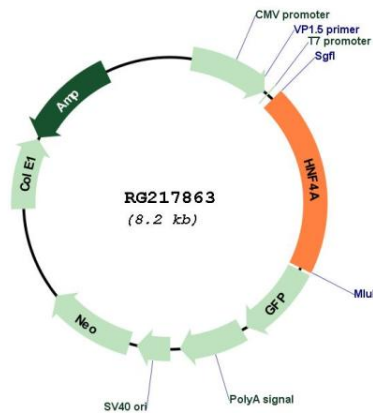
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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_000457.3, NP_000448.3](#)
RefSeq Size: 4737 bp
RefSeq ORF: 1425 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 RG217863