

Product datasheet for **RC211201**

HNF1 alpha (HNF1A) (NM_000545) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HNF1 alpha (HNF1A) (NM_000545) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HNF1 alpha
Synonyms:	HNF-1A; HNF1; HNF1alpha; HNF4A; IDDM20; LFB1; MODY3; TCF-1; TCF1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>RC211201 representing NM_000545
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGTTTCTAAACTGAGCCAGCTGCAGACGGAGCTCCTGGCGGCCCTGCTGGAGTCAGGGCTGAGCAAAG
AGGCACTGCTCCAGGCACTGGGTGAGCCGGGGCCCTACCTCCTGGCTGGAGAAGGCCCCCTGGACAAGGG
GGAGTCTGCGGCGCGGTTCAGGGGAGCTGGCTGAGCTGCCAATGGGCTGGGGGAGACTCGGGGCTCC
GAGGACGAGACGGACGACGATGGGAAGACTTCACGCCACCCATCCTCAAAGAGCTGGAGAACCTCAGCC
CTGAGGAGGGCGCCACCAGAAAGCCGTGGTGGAGACCTTCTGCAGGAGGACCCGTGGCGTGTGGCGAA
GATGGTCAAGTCTACCTGCAGCAGCACAAATCCACAGCGGGAGGTGGTTCGATACCACTGGCCTCAAC
CAGTCCCACCTGTCCAACCTCAACAAGGGCACTCCCATGAAGACGCAGAAGCGGGCCGCCCTGTACA
CCTGGTACGTCCGAAGCAGCGAGAGGTGGCGCAGCAGTTCACCCATGCAGGGCAGGGAGGGCTGATTGA
AGAGCCCACAGGTGATGAGCTACCAACCAAGAAGGGGCGGAGGAACCGTTTCAAGTGGGGCCAGCATCC
CAGCAGATCCTGTTCCAGGCCTATGAGAGGCAGAAGAACCCTAGCAAGGAGGAGCCGAGAGACGCTAGTGG
AGGAGTGAATAGGGCGGAATGCATCCAGAGAGGGGTGTCCCATCACAGGCACAGGGGCTGGGCTCCAA
CCTCGTACCGGAGGTGCGTGTCTACAACCTGGTTTGCACCCGGCGCAAAGAAGAAGCCTTCCGGCACAAG
CTGGCCATGGACACGTACAGCGGCCCCCCCAGGGCCAGGCCCGGGACCTGCGCTGCCCGCTCACAGCT
CCCCTGGCCTGCCTCCACCTGCCCTCTCCCCAGTAAGTCCACGGTGTGCGCTATGGACAGCCTGCGAC
CAGTGAGACTGCAGAAGTACCCTCAAGCAGCGGGGTCCCTTAGTGACAGTGTCTACACCCTCCACCAA
GTGTCCCCACGGGCTGGAGCCAGCCACAGCCTGCTGAGTACAGAAGCCAAGCTGGTCTCAGCAGCTG
GGGGCCCCCTCCCCCTGTCAGCACCCCTGACAGCACTGCACAGCTTGGAGCAGACATCCCAGGCCTCAA
CCAGCAGCCCCAGAACCTCATATGGCCTCACTTCTGGGGTTCATGACCATCGGGCTGGTGAACCTGCC
TCCTGGGTCTACGTTACCAACACAGGTGCCTCCACCCTGGTTCATCGGCTGGCTCCACGCAGGCAC
AGAGTGTGCCGTTCATCAACAGCATGGGCAGCAGCCTGACCACCCTGCAGCCCGTCCAGTTCTCCAGCC
GCTGCACCCCTCTACCAGCAGCCGCTCATGCCACCTGTGCAGAGCCATGTGACCCAGAGCCCTTCATG
GCCACCATGGCTCAGCTGCAGAGCCCCACGCCCTCTACAGCCACAAGCCCGAGGTGGCCAGTACACCC
ACACAGGCCTGCTCCCGCAGACTATGCTCATCACCGACACCACCAACCTGAGCGCCCTGGCCAGCCTCAC
GCCACCAAGCAGGTCTTCACTCAGACACTGAGGCTCCAGTGAGTCCGGGCTTACACGCGGCATCT
CAGGCCACCACCTCCAGTCCCAGCCAGGACCTGCCGGCATCCAGCACCTGCAGCCGGCCACCAGGC
TCAGCGCCAGCCCACAGTGTCTCCAGCAGCCTGGTGTGTACCAGAGCTCAGACTCCAGCAATGGCCA
GAGCCACCTGCTGCCATCAACACAGCGTTCATCGAGACCTTCTCCACCCAGATGGCCTCTCTCTCC
CAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA

Protein Sequence: >RC211201 representing NM_000545
Red=Cloning site Green=Tags(s)

MVSKLSQLQTELLAALLESGLSKEALLQALGEPGPYLLAGEGPLDKGESCGGGRGELAE L PNLGGETRGS
 EDETDDDDGDFTPPILKELENLSPEEAAHQKAVVETLLQEDPWRVAKMVKSYLQQHNIPQREVVDTTGLN
 QSHLSQHLNKGTPMKTQKRAALYTWYVRKQREVAQQFTHAGQGGLIEEPTGDELPTKKGRRNRFKWPAS
 QQILFQAYERQKNPSKEERETLVEECNRAECIQRGVSPSQAQGLGSNLVTEVRVYNWFANRRKEEAFRHK
 LAMDTYSGPPPGPGPALPAHSSPGLPPPALS PSKVHGVRYGQPATSETAEVPSSSGGPLVTVSTPLHQ
 VSPTGLEPSHLLSTEAKLVSAAGGPLPPVSTLTALHSLEQTSPLNQQPQNLIMASLPGVMTIGPGEPA
 SLGPTFTNTGASTLVIGLASTQAQSVPI NSMGSSLTTLQPVQFSQPLHPSYQQPLMPPVQSHVTQSPFM
 ATMAQLQSPHALYSHKPEVAQYHTGLLPQTMLITDTTNL SALASLTPTKQVFTSDTEASSEGLHTPAS
 QATTLHVPSQDPAGIQHLQPAHRLSASPTVSSSSLVLYQSSDSSNGQSHLLPSNHVSIETFI STQMASS
 Q

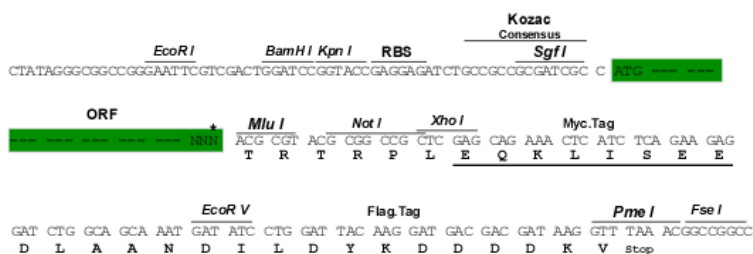
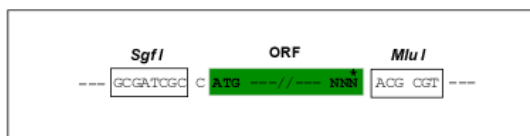
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2637_e05.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

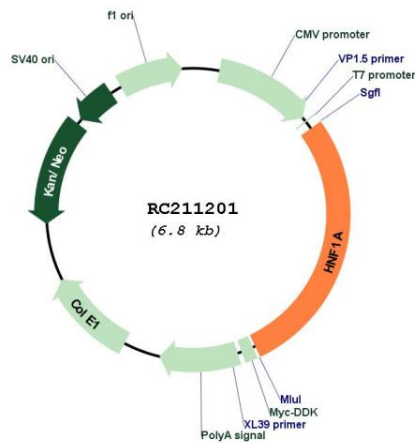
ACCN: NM_000545

ORF Size: 1893 bp

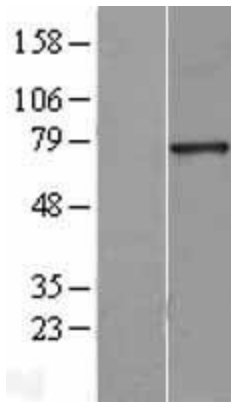
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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.</p> <p>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</p>
OTI Annotation:	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
Components:	<p>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).</p>
Reconstitution Method:	<ol style="list-style-type: none">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:	<p>Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.</p>
RefSeq:	NM_000545.8
RefSeq Size:	3249 bp
RefSeq ORF:	1896 bp
Locus ID:	6927
UniProt ID:	P20823
Cytogenetics:	12q24.31
Protein Families:	Adult stem cells, Druggable Genome, ES Cell Differentiation/IPS, Transcription Factors
Protein Pathways:	Maturity onset diabetes of the young
MW:	67.2 kDa

Gene Summary:

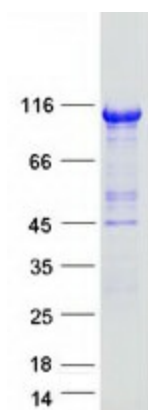
The protein encoded by this gene is a transcription factor required for the expression of several liver-specific genes. The encoded protein functions as a homodimer and binds to the inverted palindrome 5'-GTTAATNATTAAC-3'. Defects in this gene are a cause of maturity onset diabetes of the young type 3 (MODY3) and also can result in the appearance of hepatic adenomas. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Apr 2015]

Product images:


Circular map for RC211201



Western blot validation of overexpression lysate (Cat# [LY400185]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211201 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HNF1A protein (Cat# [TP311201]). The protein was produced from HEK293T cells transfected with HNF1A cDNA clone (Cat# RC211201) using MegaTran 2.0 (Cat# [TT210002]).