

Product datasheet for **RG204453**

HNF1 beta (HNF1B) (NM_000458) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HNF1 beta (HNF1B) (NM_000458) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HNF1 beta
Synonyms:	ADTKD3; FJHN; HNF-1-beta; HNF-1B; HNF1beta; HNF2; HPC11; LF-B3; LFB3; MODY5; RCAD; T2D; TCF-2; TCF2; VHNF1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG204453 representing NM_000458
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGTGTCCAAGCTCACGTCGCTCCAGCAAGAAGCTCCTGAGCGCCCTGCTGAGCTCCGGGTACCAAGG
 AGGTGCTGGTTCAGGCCTTGGAGGAGTTGCTGCCATCCCCGAAGCTTCGGGGTGAAGCTGGAGACGCTGCC
 CCTGTCCCTGGCAGCGGGCCGAGCCCACCAAGCCGGTCTTCCATACTCTACCAACGCGCCACGCC
 AAGGGCCGCTTGTCCGGCAGCAGGGGCTCCGAGGACGGCGACGACTATGACACACCTCCCATCTCAAGG
 AGCTGCAGGCGCTCAACACCGAGGAGGCGGAGCAGCGGGCGGAGGTGGACCGGATGCTCAGTGAGGA
 CCCTTGGAGGGCTGCTAAAATGATCAAGGGTTACATGCAGCAACACAACATCCCCAGAGGGAGGTGGTC
 GATGTCACCGGCTGAACAGTCGCACCTCTCCAGCATCTCAACAAGGGCACCCCTATGAAGACCCAGA
 AGCGTGCCGCTCTGTACACCTGGTACGTCAGAAAGCAACGAGAGATCCTCCGACAATTCAACCAGACAGT
 CCAGAGTTCTGGAATATGACAGACAAAAGCAGTCAGGATCAGCTGCTGTTTCTTTCCAGAGTTCAGT
 CAACAGAGCCATGGGCCTGGGCAGTCCGATGATGCCTGCTCTGAGCCACCAACAAGAAGATGCGCCGCA
 ACCGGTTCAAATGGGGGCCCGCTCCAGCAAATCTTGTACCAGGCCACGATCGGCAAAAAGAACCCAG
 CAAGGAAGAGAGAGAGGCCTTAGTGGAGGAATGCAACAGGGCAGAATGTTTGCAGCGAGGGGTGCCCC
 TCCAAAGCCACGGCCTGGGCTCCAAGTGGTCACTGAGGTCCGTGCTACAAGTGGTTTGCAAACCGCA
 GGAAGGAGGAGGCATTCCGGCAAAGCTGGCCATGGACGCTATAGTCCAACAGACTCACAGCCTGAA
 CCCTCTGCTCTCCACGGCTCCCCCACCAGCCAGCTCCTCTCCTCAAACAAGCTGTCAGGAGTG
 CGCTACAGCCAGCAGGGAACAATGAGATCACTTCCTCCTCAACAATCAGTCACCATGGCAACAGCGCCA
 TGGTGACCAGCCAGTCGGTTTTACAGCAAGTCTCCCAGCCAGCTGGACCCAGGCCACAATCTCCTCTC
 ACCTGATGGTAAAATGATCTCAGTCTCAGGAGGAGGTTTGGCCCCAGTCAGCACCTTGACGAATATCCAC
 AGCCTCTCCACCATAAATCCCCAGCAATCTCAAAACCTCATCATGACACCCCTCTCTGGAGTCATGGCAA
 TTGCACAAAGCCTCAACACCTCCAAGCACAGAGTGTCCCTGTATCAACAGTGTGGCCGGCAGCCTGGC
 AGCCCTGCAGCCCGTCCAGTTCTCCAGCAGCTGCACAGCCCTACCAGCAGCCCTCATGCAGCAGAGC
 CCAGGCAGCCACATGGCCAGCAGCCCTCATGGCAGCTGTGACTCAGCTGCAGAACTCACACATGTACG
 CACACAAGCAGGAACCCCCCAGTATCCACACCTCCCGGTTTCCATCTGCAATGGTGGTCACAGATAC
 CAGCAGCATCAGTACACTACCAACATGTCTTCAAGTAAACAGTGCCTCTACAAGCCTGG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG204453 representing NM_000458
 Red=Cloning site Green=Tags(s)

MVSKLTSLQQEELLSALLSSGVTKVELVQALEELLSPNFGVKLETPLSPGSGAEPDTPKVFHTLTNGHA
 KGRLSGDEGEDDDYDTPPIKELQALNTEEAEEQRAEVDRMLSEDPWRAAKMIKGYMQHNIPQREV
 DVTGLNQSHLSQHLNKGTPMKTQKRAALYTWYVRKQREILRQFNQTVQSSGNMTDKSSQDQLFLFPEFS
 QQSHGPGQSDDACSEPTNKKMRRNRFKWGPASQQILYQAYDRQKNPSKEEREALVEECNRAECLQGVSP
 SKAHGLGSNLVTEVRVYNWFANRRKEEAFRQKLAMDAYSNNQTHSLNPLLSHGSPHHQPSPPNKL
 RYSQQGNNEITSSSTISHHGNSAMVTSQSVLQQVSPASLDPGHNLLSPDGKMI SVSGGGLPPVSTLTNIH
 SLSHHNPQQSQNLIMTPLSGVMAIAQSLNLSQAQSVPVINSVAGSLAALQPVQFSQQLHSPHQPLMQQS
 PSHMAQQPFMAAVTQLQNSHMYAHKQEPQYSHTSRFP SAMVVTDTSSI STL TNMSSSKQCPLQAW

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_000458

ORF Size: 1671 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_000458.4](#)

RefSeq Size: 2816 bp

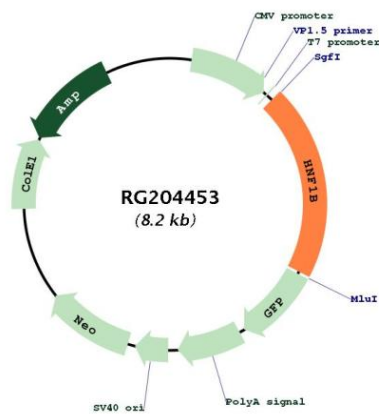
RefSeq ORF: 1674 bp

Locus ID: 6928

UniProt ID: [P35680](#)

Cytogenetics:	17q12
Protein Families:	Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS, Transcription Factors
Protein Pathways:	Maturity onset diabetes of the young
Gene Summary:	This gene encodes a member of the homeodomain-containing superfamily of transcription factors. The protein binds to DNA as either a homodimer, or a heterodimer with the related protein hepatocyte nuclear factor 1-alpha. The gene has been shown to function in nephron development, and regulates development of the embryonic pancreas. Mutations in this gene result in renal cysts and diabetes syndrome and noninsulin-dependent diabetes mellitus, and expression of this gene is altered in some types of cancer. Multiple transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Sep 2009]

Product images:



Circular map for RG204453