

Product datasheet for **SC300093**

HNF1 alpha (HNF1A) (NM_000545) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HNF1 alpha (HNF1A) (NM_000545) Human Untagged Clone
Tag:	Tag Free
Symbol:	HNF1 alpha
Synonyms:	HNF-1A; HNF1; HNF1alpha; HNF4A; IDDM20; LFB1; MODY3; TCF-1; TCF1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF:

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>OriGene sequence for NM_000545 edited
CGTGGCCCTGTGGCAGCCGAGCCATGGTTTCTAAACTGAGCCAGCTGCAGACGGAGCTCC
TGGCGGCCCTGCTCGAGTCAGGGCTGAGCAAAGAGGCACTGATCCAGGCACTGGGTGAGC
CGGGGCCCTACCTCCTGGCTGGAGAAGGCCCTGGACAAGGGGGAGTCTGCGGGCGGC
GTGAGGGGAGCTGGCTGAGCTGCCAATGGGCTGGGGGAGACTCGGGGCTCCGAGGACG
AGACGGACGACGATGGGGAAGACTTCACGCCACCCATCCTCAAAGAGCTGGAGAACCTCA
GCCCTGAGGAGGGGCCACCAGAAAGCCGTGGTGGAGACCCTTCTGCAGGAGGACCCGT
GGCGTGTGGCGAAGATGGTCAAGTCTACCTGCAGCAGCAACAATCCCACAGCGGGAGG
TGGTCGATACCACTGGCCTCAACCAAGTCCACCTGTCCCAACACCTCAACAAGGGCACTC
CCATGAAGACGCAGAAGCGGGCCGCCCTGTACACCTGGTACGTCCGCAAGCAGCGAGAGG
TGGCGCAGCAGTTCACCCATGCAGGGCAGGGAGGGCTGATTGAAGAGCCACAGGTGATG
AGCTACCAACCAAGAAGGGGGGAGGAACCGTTTCAAGTGGGGCCAGCATCCCAGCAGA
TCCTGTTCCAGGCCTATGAGAGGCAGAAGAACCCTAGCAAGGAGGAGCGAGAGACGCTAG
TGGAGGAGTGCAATAGGGCGGAATGCATCCAGAGAGGGGTGTCCCATCACAGGCACAGG
GGCTGGGCTCAAACCTCGTCACGGAGGTGCGTGTCTACAACCTGGTTTGCCAAACCGGCGCA
AAGAAGAAGCCTTCCGGCACAAGCTGGCCATGGACACGTACAGCGGGCCCCCCCCAGGGC
CAGGCCCGGGACCTGCGCTGCCCGCTCACAGCTCCCCTGGCCTGCCTCCACCTGCCTCT
CCCCAGTAAGGTCCACGGTGTGCGCTATGGACAGCCTGCGACCAGTGAGACTGCAGAAG
TACCCTCAAGCAGCGGGGTCCCTTAGTGACAGTGTCTACACCCCTCCACCAAGTGTCC
CCACGGGCTGGAGCCAGCCACAGCCTGCTGAGTACAGAAGCCAAGCTGGTCTCAGCAG
CTGGGGGCCCCCTCCCCCTGTGACGACCCTGACAGCACTGCACAGCTTGAGCAGACAT
CCATCGGGCCTGGTGGCTGCCCTCCCTGGGTCCTACGTTACCAACACAGGTGCCTCCA
CCCTGGTCATCGGCCTGGCCTCCACGCAGGCACAGAGTGTGCCGTCATCAACAGCATGG
GCAGCAGCCTGACCACCCTGCAGCCCGTCCAGTCTCCAGCCGCTGCACCCCTCCTACC
AGCAGCCGCTCATGCCACCTGTGCAGAGCCATGTGACCCAGAGCCCTTCATGGCCACCA
TGGCTCAGCTGCAGAGCCCCACGCCCTTACAGCCACAAGCCGAGGTGGCCAGTACA
CCCACAGGGCCTGCTCCCGCAGACTATGCTCATACCGACACCACCAACCTGAGCGCCC
TGGCCAGCCTCACGCCACCAAGCAGGTCTTACCTCAGACACTGAGGCCTCCAGTGAGT
CCGGGCTTACACGCGGCATCTCAGGCCACCACCTCCACGTCCCAGCCAGGACCCTG
CCGGCATCCAGCACCTGCAGCCGCCCCACGGCTCAGCGCCAGCCCCACAGTGTCTCCA
GCAGCCTGGTGTGTACCAGAGCTCAGACTCCAGCAATGGCCAGAGCCACCTGCTGCCAT
CCAACCACAGCGTCATCGAGACCTTCATCTCCACCCAGATGGCCTCTTCTCCCAGTAAC
CACGGCACCTGGGCCCTGGGGCCTGTAAGTCTGCTTGGGGGGTGTGAGGGCAGCAGCC
AGCCCTGCCTGGAGGACCTGAGCCTGCCGAGCAACCGTGGCCCTTCTGGACAGCTGTGC
CTCGCTCCCCACTCTGCTCTGATGCATCAGAAAGGGAGGGCTCTGA
    
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000545 unedited
 GGGCTCAGATTTGTAAACGACTTATATAGGGCGGCCGGAATCCGAGCCATGGTTTCTAA
 ACTGAGCCAGCTGCAGACGGAGCTCCTGGCGGCCCTGCTCGAGTCAGGGCTGAGCAAAGA
 GGCAGTATCCAGGCACTGGGTGAGCCGGGGCCCTACCTCCTGGCTGGAGAAGGCCCCCT
 GGACAAGGGGAGTCTCGCGCGCGGTGAGGGGAGCTGGCTGAGCTGCCAATGGGT
 GGGGAGACTCGGGCTCCGAGGACGAGACGGACGACGATGGGAAGACTTCACGCCACC
 CATCCTCAAAGAGCTGGAGAACCTCAGCCCTGAGGAGGGCGGCCACCAGAAAGCCGTGGT
 GGAGACCTTCTGCAGGAGGACCCGTGGCGTGTGGCGAAGATGGTCAAGTCTACCTGCA
 GCAGCACAAATCCCACAGCGGGAGGTGGTCGATACCACTGGCCTCAACCAGTCCCACCT
 GTCCCAACACCTCAACAAGGGCACTCCCATGAAGACGAGAAGCGGGCCGCCCTGTACAC
 CTGGTACGTCGCAAGCAGCGAGAGGTGGCGCAGCAGTTCACCCATGCAGGGCAGGGAGG
 GCTGATTGAAGAGCCACAGGTGATGAGCTACCAACCAAGAAGNGCGGAGGAACCGTTT
 CAAGTGGGGCCAGCATCCAGCAGATCCTGTTCCAGGCATGAGAGGCAGAAGAACC
 TAGCAAGGAGAGCGAGAGACGCTAGTGGAGGAGTGAATAGGGCGGAATGCATCCAGAGA
 GGGGTGGTCCCATCACAGGCACAGGGCTGGGGCTCAACCTCGTACGGGAGTGCCTGTC
 TACAACGGTTTGGCACCGCGCAAAGAAGAAGCCTTCCGCCAAGCTGGCCCTGGAC

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000545 unedited
 CCACGTAGACTGCGCCTCGCAAGCTAGGTACAGCACCGTGGATAGGGTTCACAAGGTA
 CACATCGGCATCGGTGTACGAATCAANAGCCCTCCCTTCTGATGCATCAGAGCAGAGT
 GGGAGCGAGGCACAGCTGTCCAGGAAGGGCCACGGTTGCTCGGCAGGCTCATGTCCTCA
 GGCACGGCTGGTCTGCTGCCCTCATACCCCCAAGCAGGCAGTACAGGCCCCAGGGCCCA
 CGTGCCGTGGTTACTGGGAGGAAGAGGCCATCTGGGTGGAGATGAAGGTCTCGATGACGC
 TGTGGTTGGATGGCAGCAAGTGGCTCTGGCCATTGCTGGAGTCTGACCTCTGGTACAGCA
 CCAGGCTGCTGGAGGACTGTGGGGCTGGCGCTGAGCCGGTGGGCCGGCTGCAGGTGCT
 GGATGCCTGCAGGGTCTGGCTGGCGACTTGAAGGGTGGTGGCCTGAGATGCCGGCCTGT
 GAAGCCCCGACTCACTGGAGGCCCACTGTCTGACGTGAACACCTGCTTGGTGGGCGTGA
 GGCTGGCCATGGCGCTCAGGTTGGTGGTGTCTGTGATGAGCATACTCTGCGTGAGCAGGC
 ACCTGTGTGTACTGTGCCACCTCGGGCTTGTGGCTGTATAGGGCGTGGCGGCTCTGCA
 ACTGATCCATGGTGGCCATCGAAGGGGCTCTGGGGTACATCGACTCTGCACATGTGGCA
 TTGACCGGCTCGTGGTACGTATGGGTGCCAACCGCTGGGGAGAAGTGAACCGGCTGC
 AGGGTGGATCAGGGCTGCTGCCATGCTGGTTGATGACCCGGCACAACCTGTGGCTTGC
 CTTGAAGGGCCAGAACCATGACCCATGGGTGGAAGGCCACCGGGGTGGTTGGAACG
 CAGGACCAAGGGGAGGCCAAGCTTACCAGCCCCCATGGTGCCATAA

Restriction Sites:

Please inquire

ACCN:

NM_000545

Insert Size:

2100 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: The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference.

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_000545.3](#), [NP_000536.3](#)

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

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]

Transcript Variant: This variant (2) uses an alternate in-frame splice site in the 3' coding region, compared to variant 1. The encoded isoform (2) is shorter than isoform 1.