

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

Product datasheet for SC302485

HNF 4 alpha (HNF4A) (NM_001030003) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HNF 4 alpha (HNF4A) (NM_001030003) Human Untagged Clone
Tag:	Tag Free
Symbol:	HNF 4 alpha
Synonyms:	FRTS4; HNF4; HNF4a7; HNF4a8; HNF4a9; HNF4alpha; MODY; MODY1; NR2A1; NR2A21; TCF; TCF-14; TCF14
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	<pre>>OriGene ORF sequence for NM_001030003 edited ATGGTCAGCGTGAACGCGCCCCTCGGGGCTCCAGTGGAGAGTTCTTACGACACGTCCCCA TCAGAAGGCACCCAACCTCAACGCGCCCAACAGCCTGGGTGTCAGCGCCCTGTGTGCCATC TGCGGGGACCCGGCCACGGGCAACAACCACTACGGTGCCTGGAGCGGTGGACGGCGCAGGGC TTCTTCCGGAGGAGCGGCGCAGAGAACCACTACGTGTACTCCTGCAGGTTTAGCCGGCAGGAGGCG GTGGTGGACAAAGACAAGAGGAACCACGTGCCGCTACTGCAGGCTCAAGAATGCTTCCGG GCTGGCATGAAGAAGGAAGCCGCTCCAGAATGAGCGGGACCGGATCAAGCACTCGAAGGTCA AGCTATGAGGACAGCAGCCGCCTCCACAATGAGCGGCGCAGGCCCAGCAGAGAGGTCCTGTCC CGACAGATCACCTCCCCGGGCTCCACAATGAGCGGCGCAGGCCGGAGGACCGGCCGCGCC AGCATCGCAGATGTGTGTGAGTCCATGAAGGAGCAGCTGCTGGTCTCGTTGAGTGGGCC AGCATCGCCAGATGTGTGTGAGTCCATGAAGGAGCAGCTGCTGGTTCTCGTTGAGTGGGCC CATGCTGCCGAGACCTGCTGCGGGAGCCACCAGGGGCCCTGCTCCTGCAGGCC CATGCTGCGGGACCTGCTGCGGGACCACCAGGGCGCCGGCGCGGCGGAGGTGGCC CATGCTGCGGGCACCTGCTGGGAGCCCCCCAGAGAGACCAGGTGGCCCTGCTCCAGGCC CATGCTGCCAGGCACCTGCTGGGAGCCCCCCGGAGCTGCGGGGAGATGAGC CGGGTGTCCATAGCATCACTTGTCCCGGGCCCTTCCCAGGAGCTGCCGGGGAGATGAGC CGGGTGCCATGCCTCAAGGCGCTGCGGGCGCGTTCCCAGGGCGGGGCGGCGGCGCGCGC</pre>
Restriction Sites:	Please inquire



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	F 4 alpha (HNF4A) (NM_001030003) Human Untagged Clone – SC302485
ACCN:	NM_001030003
Insert Size:	1300 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 <u>custsupport@origene.com</u> 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. <u>More info</u>
OTI Annotation:	The ORF of this clone has been fully sequenced and found to be a perfect match to NM_001030003.1.
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 Metho	 Dd: 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 001030003.1, NP 001025174.1
RefSeq Size:	1339 bp
RefSeq ORF:	1329 bp
Locus ID:	3172
UniProt ID:	<u>P41235</u>
Cytogenetics:	20q13.12
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Nuclear Hormone Receptor, Transcription Factors
Protein Pathways:	Maturity onset diabetes of the young

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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]

Transcript Variant: This variant (4) contains an alternate 5' terminal exon (resulting in translation initiation from an alternate upstream start codon) and uses an alternate in-frame donor splice site in the 3' coding region compared to variant 2. The resulting shorter isoform (4, also known as HNF4alpha7) has a distinct N-terminus and lacks a 10 aa protein segment in the C-terminal region compared to isoform 2. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.

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