

Product datasheet for **SC319415**

FH (NM_000143) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FH (NM_000143) Human Untagged Clone
Tag:	Tag Free
Symbol:	FH
Synonyms:	FMRD; HLRCC; HsFH; LRCC; MCL; MCUL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_000143.2
 ATTCTACCCAAGCTCCCTCAGCACCATGTACCGAGCACTTCGGCTCCTCGCGCGCTCGCG
 TCCCTCGTGCGGGCTCCAGCCGAGCCTTAGCTTCGGCTCCCGGCTTGGGTGGCGCGGC
 CGTGCCCTCGTTTTGGCTCCGAACGCGGCTCGAATGGCAAGCCAAAATTCCTTCCGGAT
 AGAATATGATACCTTTGGTGAATAAAGGTGCCAATGATAAGTATTATGGCGCCAGAC
 CGTGAGATCTACGATGAACCTTAAGATTGGAGGTGTGACAGAACGCATGCCAACCCAGT
 TATTAAGCTTTTGGCATCTTGAAGCGAGCGCCGCTGAAGTAAACCAGGATTATGGTCT
 TGATCCAAAGATTGCTAATGCAATAATGAAGGCAGCAGATGAGGTAGCTGAAGTAAATT
 AAATGATCATTTTTCTCTCGTGGTATGGCAGACTGGATCAGGAACTCAGACAAATATGAA
 TGTAATGAAGTCATTAGCAATAGAGCAATTGAAATGTTAGGAGGTGAACCTGGCAGCAA
 GATACCTGTGCATCCCAACGATCATGTTAATAAAAGCCAGAGCTCAATGATACTTTTCC
 CACAGCAATGCACATTGCTGCTGCAATAGAAGTTCATGAAGTACTGTTACCAGGACTACA
 GAAGTTACATGATGCTCTTGATGCAAAAATCCAAGAGTTTGCACAGATCATCAAGATTGG
 ACGTACTCATACTCAGGATGCTGTTCCACTTACTCTTGGGCAGGAATTTAGTGGTTATGT
 TCAACAAGTAAAATATGCAATGACAAGAATAAAAGCTGCCATGCCAAGAATCTATGAGCT
 CGCAGCTGGAGGCACTGCTGTTGGTACAGGTTTAAATACTAGAATTGGCTTTCAGAAAA
 GGTTGCTGCAAAAAGTGGCTGCACTTACAGGCTTGCTTTTGTCACTGCTCCGAATAAATT
 TGAAGCTCTGGCTGCTCATGACGCTCTGGTTGAGCTCAGTGGAGCCATGAACACTACTGC
 CTGCAGTCTGATGAAGATAGCAAATGATATTCGATTTTTGGGTTCTGGTCTCGGTCAGG
 TCTGGGAGAAATGATCTTGCCTGAAAATGAACCAGGAAGCAGTATCATGCCAGGCAAGGT
 GAACCCTACTCAGTGTGAAGCAATGACCATGGTTGCAGCCCAAGTCATGGGGAACCATGT
 TGCTGTCACTGTGCGGAGGCAGCAATGGACATTTTGAAGTGAATTTTTCAAGCCAATGAT
 GATTAATAAATGTGTTACACTCAGCCAGGCTGCTGGGGGATGCTTCAAGTTTCTTTTACAGA
 AAATGCGTGGTGGAAATCCAGGCCAATACAGAAAGGATCAACAAGCTGATGAATGAGTC
 TCTAATGTTGGTGACAGCTCTCAATCCTCATATAGGGTATGACAAGGCAGCAAAGATTGC
 TAAGACAGCACACAAAAATGGATCAACCTTAAAGGAAACTGCTATCGAATTGGCTATCT
 CACAGCAGAGCAGTTTGACGAATGGGTAACCTAAGGACATGCTGGTCCAAAGTGATT
 TACATAAATTTAATGAAAATAAACATGTATAAATTTAAAAAAAAAAAAAAAAAAAAAA
 AAAAAAAAAAAAAAAAAAAAAAAAAAACCTCGGG

Restriction Sites: Please inquire

ACCN: NM_000143

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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:	<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.
RefSeq:	<u>NM_000143.2</u> , <u>NP_000134.2</u>
RefSeq Size:	1791 bp
RefSeq ORF:	1533 bp
Locus ID:	2271
UniProt ID:	<u>P07954</u>
Cytogenetics:	1q43
Domains:	lyase_1
Protein Families:	Druggable Genome
Protein Pathways:	Citrate cycle (TCA cycle), Metabolic pathways, Pathways in cancer, Renal cell carcinoma
Gene Summary:	The protein encoded by this gene is an enzymatic component of the tricarboxylic acid (TCA) cycle, or Krebs cycle, and catalyzes the formation of L-malate from fumarate. It exists in both a cytosolic form and an N-terminal extended form, differing only in the translation start site used. The N-terminal extended form is targeted to the mitochondrion, where the removal of the extension generates the same form as in the cytoplasm. It is similar to some thermostable class II fumarases and functions as a homotetramer. Mutations in this gene can cause fumarase deficiency and lead to progressive encephalopathy. [provided by RefSeq, Jul 2008]