

Product datasheet for **SC112878**

Translation factor GUF1, mitochondrial (GUF1) (NM_021927) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Translation factor GUF1, mitochondrial (GUF1) (NM_021927) Human Untagged Clone
Tag:	Tag Free
Symbol:	GUF1
Synonyms:	DEE40; EF-4; EF4; EIEE40
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None



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Fully Sequenced ORF: >NCBI ORF sequence for NM_021927, the custom clone sequence may differ by one or more nucleotides

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ATGTGGACCCCTCGTGGGTCGGGGCTGGGGGTGCGCACGCGCTCTCGGCCACGAGCCACTGGGGCCGCGC
TTCTGGTGGCCCCGGGGCCCCGGTCCGCGCCGACCCTTGGGGCTGCTCCAGAGTCTGGGCTACCGACAG
GCTCTACAGCTCCGAGAAATCAAGGAAAACTTGACATGTCTAGGTTTCTGTTGAAAAATTAGAAAT
TTCAGTATTGTTGCACACGTGGATCATGGCAAAAGTACTTTAGCTGACAGGCTCCTAGAACTTACAGGGA
CAATTGATAAAACAAAGAATAATAAGCAGGTTCTTGATAAATTGCAAGTGAACGAGAAAGAGGAATCAC
TGTTAAAGCACAGACAGCATCTCTTTTACAATTGTGAAGGAAAGCAGTACCTTTTAAATCTCATTGAT
ACACCGGGCCATGTTGATTTTAGTTATGAAGTATCCAGGTCACTTTCTGCTTGCCAGGGTGTTTTACTTG
TGGTTGATGCAAAATGAGGGAATCAAGCCCAAAGTGTAGCAAACCTTTTCTGCTTGAAGCACAGCT
ATCGGTAATCCAGTTATAAATAAGATAGATCTGAAGAATGCTGATCCTGAAAGGTTGAAAACCAAAT
GAGAAAGTGTGATATCCAAGTATGAATGATTAAGATTTCTGCTAAACTTGAACAAATGTTGAGA
GTGTTCTCAGGCAATTATTGAAAGAATCCCCCTCTAAAGTGCATCGAAAAATCCTCTGAGAGCTTT
GGTATTGACTCCACCTTGACCAGTATAGAGGTGTGATAGCCAATGTAGCATTATTTGACGGAGTGGTT
TCCAAAGGAGATAAAATTGTATCTGCACATACTCAAAGACATACGAAGTAAATGAAGTAGGAGTCTTGA
ATCCTAATGAGCAGCCAACTCATAAATTATGACAGGACAGGTGGGCTATCTGATTGCTGGGATGAAAGA
TGTCAGTGAAGCGCAAAATAGGAGATACATTATGTTTACATAAGCAACCAGTGGAGCCCTTGCTGGGTTT
AAATCAGCGAAACCAATGGTATTTGAGGAAATGTATCCTCTAGACCAATCTGAATATAACAATCTGAAGA
GTGCTATAGAAAACTGACTTTAAATGATTCCAGTGTGACCGTTCATCGGGATAGTAGCCTTGCTCTGGG
TGCTGGCTGGAGGCTAGGATTTCTGGACTTTTGCACATGGAAGTTTTCAACCAGCGACTGGAGCAAGAA
TATAAGCTTCTGTTATTTTAAACAACCCCTACTGTTCCATATAAGCTGTACTGTATCATAAAATTTGA
TAAAGGAACATAGAGAAAAAGAAATTACAATTATCAATCCTGCACAATCCCCGATAAAATCAAAGTAAAC
AGAATATTTGGAGCCAGTTGTTTTGGGCACTATTATCACACCAGATGAATACACTGGAAAAATAATGATG
CTTTGCGAGGCTCGAAGAGCAGTTCAGAAGAATATGATATTTATTGATCAAAATAGAGTTATGCTTAAAT
ATCTCTTTCTTTGAATGAAATTTGGTAGATTTTATGACTCTTTGAAATCCCTATCTTCTGGATATGC
TAGTTTTGATTACGAAGATGCAGGCTACCAGACTGCAGAACTGTAAAAATGGATATTCTACTGAATGGA
AATACTGTAGAGGAGCTAGTAACTGTTGTACACAAAGACAAGCTCATTCAATTGGCAAAGCCATATGTG
AACGGCTGAAGGATTCTTCTTAGGCAACTGTTTGTAGATAGCAATTCAAGCTGCTATTGGAAGTAAAT
CATTGCAAGAGAACTGTGAAAGCCTATAGGAAAAACGTTTTGGCAAAATGTTATGGTGGTATATTACC
CGAAAAATGAAGCTTTTGAAGAGACAAGCAGAAGGGAAAAAAAAGCTGAGGAAAAATTGGCAACGTTGAAG
TTCCAAAAGATGCTTTTATAAAAGTTCTGAAAACACAATCTTCTAAATAA
    
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_021927 unedited

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TTTGAATACGACTTCACTATAGGGCGGCCGATTTCGGCACGAGGCCGGATCTGGTACT
TGGGCAGAGCTCCCCGGGGTTCATTGTCTTCGCTTACAGGATCTGTTTGAGTCTGTCC
ACCGGATCCTACGGGGGTACCTTCGAAAAAAACGGGCTATGCTGCTGTTGCGTGTGG
TACCCTCTCCTGACGCCCTCCGCCCGGGTTCATGTGGACCCTCGTGGTGGGGCTGGG
GGTGGCACGCGCTCTCGGCCACGAGCCACTGGGGCCGCGCTTCTGGTGGCCCCGGGGC
CCCGGTCCGCGCGACCCCTTGGGCTGCTCCAGAGTCTGGGCTACCGACAGGCTCTACA
GCTCCGCAGAATTCAAGGAAAACTGACATGTCTAGGTTTCTGTTGAAAAATTAGAA
ATTTAGTATTGTTGCACACGTGGATCATGGCAAAAGTACTTTAGCTGACAGGCTCCTAG
AACTTACAGGGACAATTGATAAAACAAAGAATAATAAGCAGGTTCTTGATAAATTGCAAG
TGAACGAGAAAGAGGAATCACTGTTAAAGCACAGACAGCATCTCTTTTACAATTGTG
AAGGAAAGCAGTACCTTTTAAATCTCATTGATACACCGGGCCATGTTGATTNTAGTTATG
AAGTATCCAGGTCACTTTCTGCTTGCCAGGGTGTTTTACTTGTGGTTGATGCANATGAGG
GAATTCAGCCCAACTGTAGCAAACCTTTCTTCTGCTTGAAGCACAGCTATCGTAAT
TCCAGTTATAAATAAGATAGATCCTGAGAATGCTGATCCTGAAAAGTTTAAAACCAAT
GAGAAAGTGTGATATCCAAGTATGAATGTTTAAAGAAATCTGCTTAACTTGGACAAAT
GTTGAG
    
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Restriction Sites:	NotI-NotI
ACCN:	NM_021927
Insert Size:	4700 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>
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:	NM_021927.1 , NP_068746.1
RefSeq Size:	2671 bp
RefSeq ORF:	2010 bp
Locus ID:	60558
UniProt ID:	Q8N442
Cytogenetics:	4p12
Domains:	EFG_C, GTP_EFTU, GTP_EFTU_D2
Gene Summary:	<p>This gene encodes a GTPase that triggers back-translocation of the elongating ribosome during mitochondrial protein synthesis. The protein contains a highly conserved C-terminal domain not found in other GTPases that facilitates tRNA binding. The encoded protein is thought to prevent misincorporation of amino acids in stressful, suboptimal conditions. An allelic variant in this gene has been associated with early infantile epileptic encephalopathy-40. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2016]</p>