

## Product datasheet for **RC225394**

### ETFA (NM\_001127716) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ETFA (NM_001127716) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ETFA
Synonyms:	EMA; GA2; MADD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC225394 representing NM_001127716 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTTCCGAGCGGCGCTCCGGGGCAGCTCCGGCGGGCGGTGGCACAAGATCTCTGTAAGTAGCAGGCA  
TAGCAAAAGTTCTGGTGGCTCAGCATGATGTGTACAAAGGCTACTTCCAGAGGAACTGACACCATTGAT  
TTTGGCAACTCAGAAGCAGTTCAATTACACACACATCTGTGCTGGAGCATCTGCCTTCGAAAGAACCTT  
TTGCCAGAGTAGCAGCCAACTTGAGGTTGCCCGATTCTGACATCATTGCAATCAAGTCACCTGACA  
CATTTGTGAGAACTATTTATGCAGGAAATGCTCTATGTACAGTGAAGTGTGATGAGAAAGTAAAAGTGTT  
TTCTGTCCGTGGAACATCCTTTGATGCTGCAGCAACAAGTGGCGGTAGTGCCAGTTCAGAAAAGGCATCA  
AGTACTTCACCAAGTGAAATATCAGAGTGGCTTGACCAGAAATTAACAAAAGTATCGACCAGAGCTAA  
CAGGTGCCAAAGTGGTGTATCTGGTGGTTCGAGGCTTGAAGAGTGGAGAGAACTTAAAGTTGTTATATGA  
CTTGGCAGATCAACTACATGCTGCAGTTGGTGGTCCCGTGTCTGTTGATGCTGGCTTTGTTCCCAAT  
GACATGCAAGTTGGACAGACGGGAAAAATAGTAGCACCAGAACTTATATTGCTGTTGGAATATCTGGAG  
CCATCCAACATTTAGCTGGGATGAAAGACAGCAAGACAATTGTGGCAATTAATAAAGACCCAGAAGCTCC  
AATTTTCCAAGTGGCAGATTATGGAATAGTTGCAGATTTATTTAAGGTAGTTCCTGAAATGACTGAGATA  
TTGAAGAAAAA

**ACGCGT**ACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC225394 representing NM\_001127716  
Red=Cloning site Green=Tags(s)

MFRAAAPGQLRRAVAQDLCKVAGIAKVLVAQHDVYKGLLPEELTPLILATQKQFNHYTHICAGASAFGKNL  
 LPRVAAKLEVAPISDIIAIKSPDTFVRTIYAGNALCTVKCDEKVKVFSVRGTSFDAATSGGSASSEKAS  
 STSPVEISEWLDQKLTKSDRPELTGAKVVVSGGRGLKSGENFKLLYDLADQLHAAV GASRAAVDAGFVFN  
 DMQVQGTGKIVAPELYIAVGISGAIQHLAGMKDSKTIVAINKDPEAPIFQVADYGI VADLFKVVPEMTEI  
 LKKK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8049\\_c11.zip](https://cdn.origene.com/chromatograms/mk8049_c11.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001127716

**ORF Size:** 852 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\\_001127716.1](#), [NP\\_001121188.1](#)

**RefSeq ORF:** 855 bp

**Locus ID:** 2108

**UniProt ID:** [P13804](#)

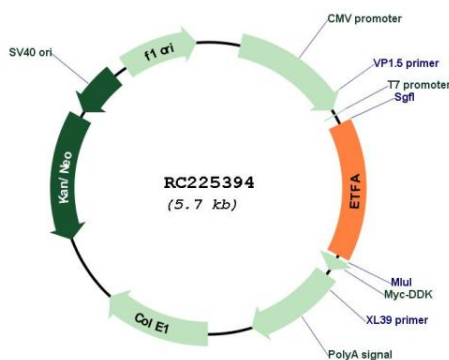
**Cytogenetics:** 15q24.2-q24.3

**Protein Families:** Druggable Genome

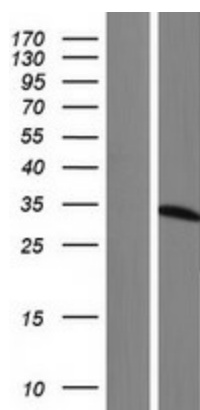
**MW:** 29.8 kDa

**Gene Summary:** ETFA participates in catalyzing the initial step of the mitochondrial fatty acid beta-oxidation. It shuttles electrons between primary flavoprotein dehydrogenases and the membrane-bound electron transfer flavoprotein ubiquinone oxidoreductase. Defects in electron-transfer-flavoprotein have been implicated in type II glutaricaciduria in which multiple acyl-CoA dehydrogenase deficiencies result in large excretion of glutaric, lactic, ethylmalonic, butyric, isobutyric, 2-methyl-butyric, and isovaleric acids. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

## Product images:



Circular map for RC225394



Western blot validation of overexpression lysate (Cat# [LY426873]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225394 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).