

## Product datasheet for RC204880

### Frataxin (FXN) (NM\_000144) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Frataxin (FXN) (NM\_000144) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Frataxin  
**Synonyms:** CyaY; FA; FARR; FRDA; X25  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC204880 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGTGGACTCTCGGGCGCCGCGCAGTAGCCGGCTCCTGGCGTCACCCAGCCGGCCAGGCCAGACCC  
 TCACCCGGGTCCCGCGCCGGCAGAGTTGGCCCCACTCTGCGGCCCGCTGGCCTGCGCACCGACATCGA  
 TGGCACCTGCACGCCCGCCGCAAGTTCGAACCAACGTGGCCTCAACCAGATTGGAATGTCAAAAAG  
 CAGAGTGTCTATTTGATGAATTTGAGGAAATCTGGAACCTTGGGCCACCCAGGCTCTCTAGATGAGACCA  
 CCTATGAAAGACTAGCAGAGGAAACGCTGGACTCTTAGCAGAGTTTTTTGAAGACCTTGCAGACAAGCC  
 ATACACGTTTGGAGACTATGATGTCTCCTTTGGGAGTGGTGTCTTAAGTGTCAAAGTGGTGGAGATCTA  
 GGAACCTATGTGATCAACAAGCAGACGCCAAACAAGCAAATCTGGCTATCTTCTCCATCCAGTGGACCTA  
 AGCGTTATGACTGGACTGGGAAAAACTGGGTGACTCCCACGACGGCGTGTCCCTCCATGAGCTGTGGC  
 CGCAGAGCTCACTAAAGCCTTAAAAACAAACTGGACTTGTCTTCTTGGCCTATTCCGGAAAAAGATGCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC204880 protein sequence  
 Red=Cloning site Green=Tags(s)

MWTLGRRVAGLLASPSPAQAQTLTRVPRPAELAPLCGRRGLRTDIDATCTPRRASSNQRLNLIWVKK  
 QSVYLMNLRKSGTLGHPGSLDETTYERLAEETLDSLAEFFEDLADKPYTFEDYDVSFGSGVLTVKLGGDL  
 GTYVINKQTPNKQIWLSSPSSGPKRYDWTGKNWVYSHDGVSLHELLAAELTKALKTKLDLSSLAYS GKDA

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV



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**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6127\\_h04.zip](https://cdn.origene.com/chromatograms/mk6127_h04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000144

**ORF Size:** 630 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.

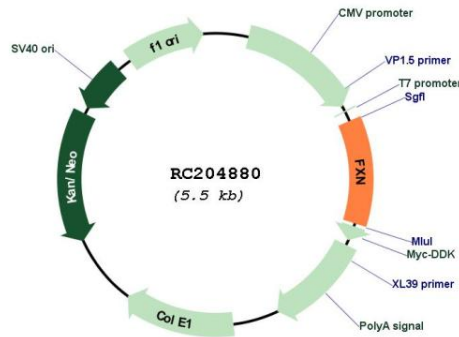
**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_000144.2](#)

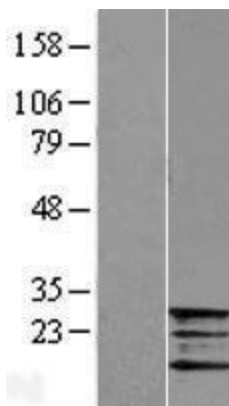
**RefSeq Size:** 7168 bp

RefSeq ORF:	633 bp
Locus ID:	2395
UniProt ID:	<a href="#">Q16595</a>
Cytogenetics:	9q21.11
Domains:	Frataxin_Cyay
Protein Families:	Druggable Genome
MW:	23.1 kDa
Gene Summary:	This nuclear gene encodes a mitochondrial protein which belongs to the FRATAXIN family. The protein functions in regulating mitochondrial iron transport and respiration. The expansion of intronic trinucleotide repeat GAA from 8-33 repeats to >90 repeats results in Friedreich ataxia. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2016]

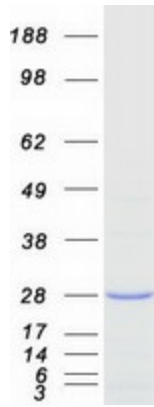
### Product images:



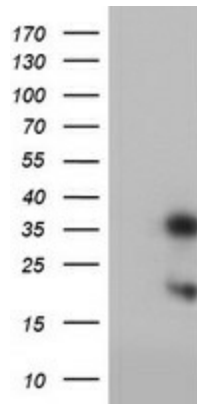
Circular map for RC204880



Western blot validation of overexpression lysate (Cat# [LY400054]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204880 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FXN protein (Cat# [TP304880]). The protein was produced from HEK293T cells transfected with FXN cDNA clone (Cat# RC204880) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY FXN (Cat# RC204880, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-FXN (Cat# [TA504254]). Positive lysates [LY400054] (100ug) and [LC400054] (20ug) can be purchased separately from OriGene.