

## Product datasheet for **RC228108**

### Frataxin (FXN) (NM\_001161706) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Frataxin (FXN) (NM\_001161706) 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:** >RC228108 representing NM\_001161706  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTGGACTCTCGGGCGCCGCGCAGTAGCCGGCCTCTGGCGTCACCCAGCCCAGCCCAGGCCAGACCC  
TCACCCGGGTCCCGCGCCGGCAGAGTTGGCCCCACTCTGCGGCCCGCTGGCCTGCGCACCGACATCGA  
TGCGACCTGCACGCCCGCCGCAAGTTCGAACCAACGTGGCCTCAACCAGATTGGAATGTCAAAAAG  
CAGAGTGTCTATTTGATGAATTTGAGGAAATCTGGAACCTTGGGCCACCCAGGCTCTCTAGATGAGACCA  
CCTATGAAAGACTAGCAGAGGAAACGCTGGACTCTTTAGCAGAGTTTTTTGAAGACCTTGCAGACAAGCC  
ATACACGTTTGGAGACTATGATGTCTCCTTTGGGAGTGGTGTCTTAAGTGTCAAAGTGGGTGGAGATCTA  
GGAACCTATGTGATCAACAAGCAGACGCCAAACAAGCAAATCTGGCTATCTTCTCCATCCAGGTTAACGT  
GGCTCCTGTGGCTGTTCCATCCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC228108 representing NM\_001161706  
Red=Cloning site Green=Tags(s)

MWTLGRRVAVGLLASPSPAQAQTLTRVPRPAELAPLCGRRRLRTDIDATCTPRRASSNQRLNQIWNVKK  
QSVYLMNLRKSGTLGHPGSLDETTYERLAETLDSLAEFFEDLADKPYTFEDYDVSFSGSVLTVKLGDDL  
GTYVINKQTPNKQIWLSSPSRLTWLLWLFHP

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1454\\_a03.zip](https://cdn.origene.com/chromatograms/ja1454_a03.zip)



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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_001161706

ORF Size: 516 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\\_001161706.1](#), [NP\\_001155178.1](#)

RefSeq ORF: 516 bp

Locus ID: 2395

UniProt ID: [Q16595](#)

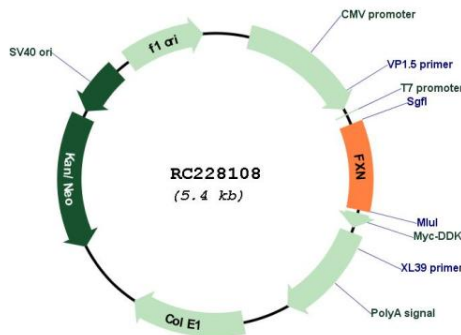
Cytogenetics: 9q21.11

**Protein Families:** Druggable Genome

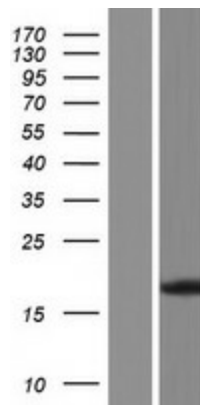
**MW:** 19.09 kDa

**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 RC228108



Western blot validation of overexpression lysate (Cat# [LY431136]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228108 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).