

## Product datasheet for **RC204614**

### **PYROXD1 (NM\_024854) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PYROXD1 (NM_024854) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PYROXD1
Synonyms:	MFM8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC204614 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGGCAGCGGCCCTCCCCGACGGCAGGGAAGTTCGTGGTGGTCGGCGCGGCATCGCGGGCGTCA  
 CTTGTGCCGAGCAGTTGGCTACTCACTTTCCATCGGAAGATATTCTTTGGTAACAGCTTCTCTGTTAT  
 TAAAGCAGTTACAAATTTCAAGCAGATTCTAAAAATTTGGAAGAATTCGATGTTGAAGAACAATCAAGT  
 ACCATGTTAGGAAAACGCTTTCCCAACATTAAGGTTATAGAATCTGGCGTAAAGCAACTGAAGAGTGAAG  
 AACACTGCATTGTAAACAGAAGATGGCAATCAGCACGTATAAAGAACTCTGTCTGTGTGCTGGAGCTAA  
 ACCAAAGTTGATATGTGAAGGAAATCCTTATGTATTAGGAATCCGTGATACAGACAGTGCCTCAGGAATTT  
 CAGAAACAGCTTACTAAAGCTAAAAGAATAATGATCATAGGGAACGGTGGTATTGCACCTTGAGTTAGTGT  
 ATGAAATTGAAGGCTGTGAAGTGATTTGGGCCATTAAGATAAAGCTATAGGGAATACTTTCTTCGATGC  
 AGGAGCAGCTGAATTCCTGACTTCAAAGCTCATTGCTGAAAAATCAGAGGCTAAAATTGCACATAAAGA  
 ACCAGATATACAACTGAAGGAAGGAAAAAGGAAGCTAGAAGCAAACTAAAGCAGATAATGTAGGAAGTG  
 CATTGGGACCAGATTGGCATGAAGGCTTGAATCTTAAAGGAACAAAAGAGTTTTCTCATAAGATTACCT  
 TGAAACTATGTGTGAAGTAAAGAAAATCTACCTCAGGATGAGTTTAGAATTTTGAAGAAAAAGTCTTC  
 ACTTTTCCAAGAGACCATAAGTCAGTTACAGCTGATACAGAGATGTGGCCTGTCTATGTGGAATTGACCA  
 ATGAAAAGATATATGGCTGCGATTTTCATTGTGCTGCTACAGGAGTTACACCAATGTAGAACCTTTTCT  
 CCATGGTAACAGTTTTGATCTAGGAGAAGATGGTGGCCTGAAAGTGGATGATCATATGCACACATCCCTT  
 CCTGATATCTATGCTGCCGGTGACATCTGTACTACATCCTGGCAGCTGAGCCAGCTGGCAGCAGATGA  
 GGCTGTGGACCCAGGCTAGACAGATGGGATGGTATGCAGCAAAGTGCATGGCTGCAGCGAGTTCAGGAGA  
 CTCTATTGACATGGATTTCAAGCTTTGAAGCTTTGCTCATGTGACAAAATTTTTTAACTATAAGGTTGTA  
 CTGCTGGGAAAATACAATGCACAGGCTTAGGTTGAGTATGAATTAATGCTGAGATGTACCAAAGGAC  
 GAGAATACATCAAAGTCGTATGCAAAAATGGACGAATGATGGGAGCTGTCTAATTGGTGAACCGATTT  
 AGAAGAAACATTTGAAAACCTAATCTTAAACCAATGAATCTTTCATCATATGGAGAAGATCTGCTAGAT  
 CCAAATATTGATATAGAAGATTATTTTAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC204614 protein sequence  
 Red=Cloning site Green=Tags(s)

MEARPPPTAGKVVVGGGIAGVTCAEQLATHFPSEDILLVTASPVKAVTNFKQISKILEEFDVEEQSS  
 TMLGKRFPNIKVIKESGVKQLKSEEHCIVTEDGNQHVYKLLCLCAGAKPKLICEGNPYVLGIRDTDSAQEF  
 QKQLTKAKRIMIIGNGGIALELVYEIEGCEVIWAIKDKAIGNTFFDAGAAEFLSKLIAEKSEAKIAHNR  
 TRYTTTEGRKKEARSKSKADNVGSALGPDWHEGLNLKGTKEFSHKIHLETMCEVKKIYLQDEFRIKKSFS  
 TFPDRHKSVTADTEMWPVYVELTNEKIYGCDFIVSATGVTNVEPFLHGNSFDLGEDGGLKVDHMHMTSL  
 PDIYAAGDICTTSWQLSPVWQMLWTQARQMGWYAAKCAAASSGDSIDMDFSELFAHVTKFFNYKVV  
 LLGKYNAQGLGSDHEMLRCTKGREYIKVVMQNGRMMGAVLIGETDLEETFENLILNQMNLSYGEDLLD  
 PNIDIEDYFD

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6580\\_d04.zip](https://cdn.origene.com/chromatograms/mk6580_d04.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_024854

**ORF Size:** 1500 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\\_024854.5](#)

**RefSeq Size:** 4136 bp

**RefSeq ORF:** 1503 bp

**Locus ID:** 79912

**UniProt ID:** [Q8WU10](#)

**Cytogenetics:** 12p12.1

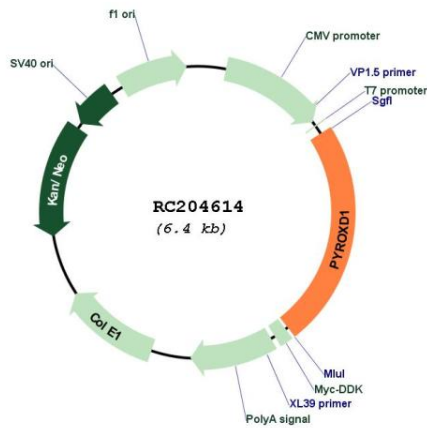
**Domains:** pyr\_redox

**Protein Families:** Druggable Genome

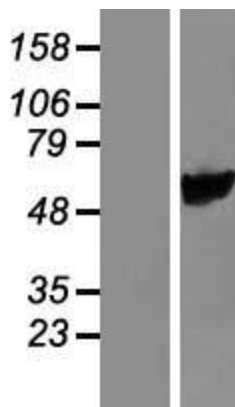
**MW:** 55.8 kDa

**Gene Summary:** This gene encodes a nuclear-cytoplasmic pyridine nucleotide-disulphide reductase (PNDR). PNDRs are flavoproteins that catalyze the pyridine nucleotide-dependent reduction of thiol residues in other proteins. The encoded protein belongs to the class I pyridine nucleotide-disulphide oxidoreductase family but lacks the C-terminal dimerization domain found in other family members and instead has a C-terminal nitrile reductase domain. It localizes to the nucleus and to striated sarcomeric compartments. Naturally occurring mutations in this gene cause early-onset myopathy with internalized nuclei and myofibrillar disorganization. A pseudogene of this gene has been defined on chromosome 11. [provided by RefSeq, Apr 2017]

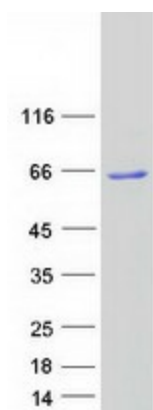
**Product images:**



Circular map for RC204614



Western blot validation of overexpression lysate (Cat# [LY411022]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204614 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PYROXD1 protein (Cat# [TP304614]). The protein was produced from HEK293T cells transfected with PYROXD1 cDNA clone (Cat# RC204614) using MegaTran 2.0 (Cat# [TT210002]).