

## Product datasheet for RC211742

### PHYH (NM\_001037537) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PHYH (NM_001037537) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PHYH
Synonyms:	LN1; LNAP1; PAHX; PHYH1; RD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC211742 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGCAGCTTCGCGCCGCCCGCCGCTCTGCAGATTGTTCTGGCCACCTCGGCCGCCCTCGGCCGGG  
CTGTCGTAGCTCATCCCCTTCAGGGACTATTTCTCTGCCAGTTTCCATCCTCAACAATCCAGTATAC  
TCTGGATAATAATGTTCTAACCTGGAACAGAGAAAATTTATGAAGAAAATGGGTTTCTAGTAATCAA  
AATCTTGTACCTGATGCCGATATCAACGCTTTCGGAATGAGTTTGAAAAATCTGCAGAAAGGAGTGA  
AACCATTAGGATTAACAGTAATGAGAGATGTGACCATTTGAAAATCCGAATATGCTCCAAGTGAGAAGAT  
GATCACGAAGGTCCAGGATTTCCAGGAAGATAAGGAGCTTTCAGATACTGCACTCTCCCGAGATTCTG  
AAATATGTGGAGTGCTTCACTGGACCTAATATTATGGCCATGCACACAATGTTGATAAAACAACTCCAG  
ATTCTGGCAAGAAGAGCTCCCGTCACCCCTGCACCAGGACCTGCACTATTTCCCTTCAGGCCAGCGA  
TCTCATCGTTTGCCTGGACGGCGATGGAGCACATCAGCCGGAACAACGGCTGTCTGGTTGTGCTCCCA  
GGCACACACAAGGGCTCCCTGAAGCCCCACGATTACCCCAAGTGGGAGGGGGGAGTTAACAAAATGTTCC  
ACGGGATCCAGGACTACGAGGAAAACAAGGCCCGGTGCACCTGGTGATGGAGAAGGGCGCACTGTTTT  
CTTCCATCCTTTGCTCATCCACGGATCTGGTCAGAATAAAACCCAGGGATTCCGGAAGGCAATTTCTGC  
CATTTCCAGTCCGATTGCCACTACATTGACGTGAAGGGCACCAGTCAAGAAAACATCGAGAAGGAAG  
TTGTAGGAATAGCACATAAATTCTTTGGAGCTGAAAATAGCGTGAACCTGAAGGATATTTGGATGTTTCG  
AGCTCGACTTGTGAAAGGAGAAAGAACCAATCTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC211742 protein sequence  
Red=Cloning site Green=Tags(s)

MEQLRAAARLQIVLGHLAGRPSAGAVVAHPTSGTSSASFHPQQFQYTLDNNVLTLEQRKFEENGFLVIK  
 NLVPDADIQFRNEFEKICRKEVKPLGLTVMRDVTISKSEYAPSEKMITKVQDFQEDKELFRYCTLPEIL  
 KYVECF TGNIMAMHTMLINKPPDSGKKT SRHPLHQDLHYFPFRPSDLI VCAWTAMEHISRNNGLVLP  
 GTHKGSLKPHDYPKWEGGVNKMFGIQDYEENKARVHLVMEKGDVVFHPLL IHGSGQNK TQGRKAISC  
 HFASADCHYIDVKGTSQENIEKEVVGIAHKFFGAENSVNLKDIWMFRARLVKGERTNL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6322\\_e10.zip](https://cdn.origene.com/chromatograms/mk6322_e10.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001037537

**ORF Size:** 1017 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 Size:** 1725 bp

**RefSeq ORF:** 717 bp

**Locus ID:** 5264

**UniProt ID:** [O14832](#)

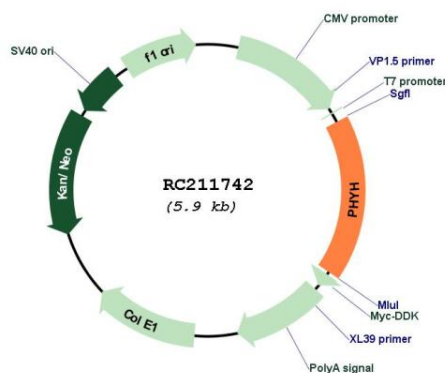
**Cytogenetics:** 10p13

**Protein Families:** Druggable Genome

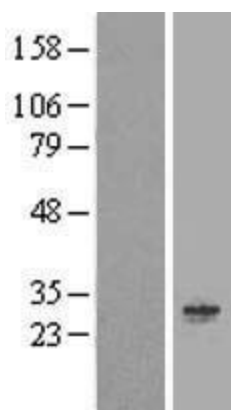
**MW:** 38.5 kDa

**Gene Summary:** This gene is a member of the PhyH family and encodes a peroxisomal protein that is involved in the alpha-oxidation of 3-methyl branched fatty acids. Specifically, this protein converts phytanoyl-CoA to 2-hydroxyphytanoyl-CoA. Mutations in this gene have been associated with Refsum disease (RD) and deficient protein activity has been associated with Zellweger syndrome and rhizomelic chondrodysplasia punctata. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jul 2008]

## Product images:



Circular map for RC211742



Western blot validation of overexpression lysate (Cat# [LY421921]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211742 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).