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Product datasheet for RC206277

PHYH (NM_006214) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PHYH (NM_006214) 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:

>RC206277 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGCAGCTTCGCGCCGCCGCCCGTCTGCAGATTGTTCTGGGCCACCTCGGCCGCCCCTCGGCCGGGG
CTGTCGTAGCTCATCCCACTTCAGGGACTATTTCCTCTGCCAGTTTCCATCCTCAACAATTCCAGTATAC
TCTGGATAATAATGTTCTAACCCTGGAACAGAGAAAATTTTATGAAGAAAATGGGTTTCTAGTAATCAAA
AATCTTGTACCTGATGCCGATATTCAACGCTTTCGGAATGAGTTTGAAAAAATCTGCAGAAAGGAGGTGA
AACCATTAGGATTAACAGTAATGAGAGATGTGACCATTTCGAAATCCGAATATGCTCCAAGTGAGAAGAT
GATCACGAAGGTCCAGGATTTCCAGGAAGATAAGGAGCTCTTCAGATACTGCACTCTCCCCGAGATTCTG
AAATATGTGGAGTGCTTCACTGGACCTAATATTATGGCCATGCACACAATGTTGATAAACAAACCTCCAG
ATTCTGGCAAGAAGACGTCCCGTCACCCCCTGCACCAGGACCTGCACTATTTCCCCTTCAGGCCCAGCGA
TCTCATCGTTTGCGCCTGGACGGCGATGGAGCACATCAGCCGGAACAACGGCTGTCTGGTTGTGCTCCCA
GGCACACACAAGGGCTCCCTGAAGCCCCACGATTACCCCAAGTGGGAGGGGGGAGTTAACAAAATGTTCC
ACGGGATCCAGGACTACGAGGAAAACAAGGCCCGGGTGCACCTGGTGATGGAGAAGGGCGACACTGTTTT
CTTCCATCCTTTGCTCATCCACGGATCTGGTCAGAATAAAACCCAGGGATTCCGGAAGGCAATTTCCTGC
CATTTCGCCAGTGCCGATTGCCACTACATTGACGTGAAGGGCACCAGTCAAGAAAACATCGAGAAGGAAG
TTGTAGGAATAGCACATAAATTCTTTGGAGCTGAAAATAGCGTGAACTTGAAGGATATTTGGATGTTTCG
AGCTCGACTTGTGAAAGGAGAAAGAACCAATCTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC206277 protein sequence
Red=Cloning site Green=Tags(s)

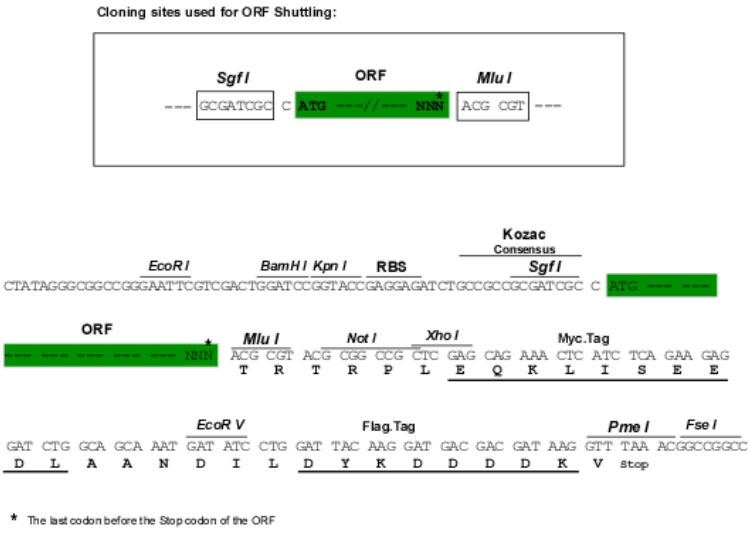
MEQLRAAARLQIVLGHLGRPSAGAVVAHPTSGTISSASFHPQQFQYTLDNNVLTLEQRKFYEENGFLVIK
NLVPDADIQRFRNEFEKICRKEVKPLGLTVMRDVTISKSEYAPSEKMITKVQDFQEDKELFRYCTLPEIL
KYVECFTGPNIMAMHTMLINKPPDSGKKTSRHPLHQDLHYFPFRPSDLIVCAWTAMEHISRNNGCLVVLP
GTHKGSLKPHDYPKWEGGVNKMFHGIQDYEENKARVHLVMEKGDTVFFHPLLIHGSGQNKTQGFRKAISC
HFASADCHYIDVKGTSQENIEKEVVGIAHKFFGAENSVNLKDIWMFRARLVKGERTNL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6245_b09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006214

ORF Size: 1014 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_006214.2, NP_006205.1

RefSeq Size: 1620 bp

RefSeq ORF: 1017 bp

Locus ID: 5264

UniProt ID: O14832

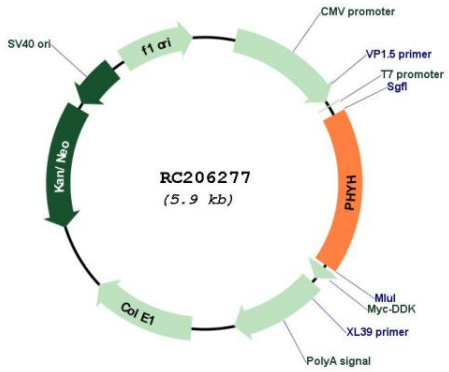
Cytogenetics: 10p13

Protein Families: Druggable Genome

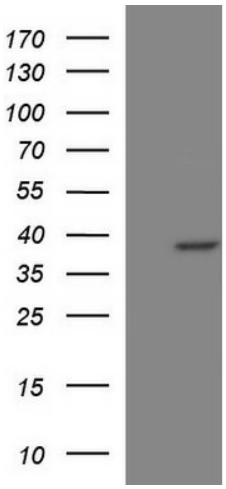
MW: 38.5 kDa

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]

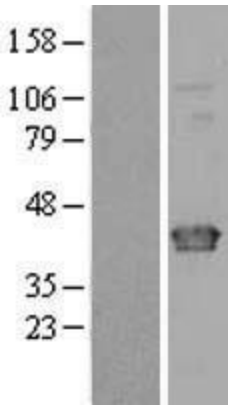
Product images:



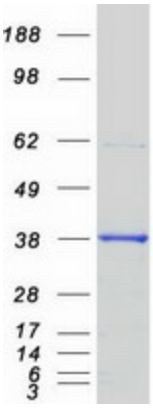
Circular map for RC206277



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PHYH (Cat# RC206277, 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-PHYH(Cat# [TA590580]). Positive lysates [LY416793] (100ug) and [LC416793] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY416793]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206277 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PHYH protein (Cat# [TP306277]). The protein was produced from HEK293T cells transfected with PHYH cDNA clone (Cat# RC206277) using MegaTran 2.0 (Cat# [TT210002]).