OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC201382

DPH2 (NM_001384) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DPH2 (NM_001384) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DPH2
Synonyms:	DPH2L2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC201382 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAGTCGATGTTTAGCAGCCCTGCCGAGGCGGCGCTGCAGCGAGAGACCGGGGTGCCAGGACTGCTTA
CTCCTCTTCCGGACCTGGACGGAGTGTACGAGCTGGAGCGAGTCGCTGGATTTGTCCGCGACCTGGGGTG
TGAACGAGTTGCCTTGCAGTTCCCTGACCAGCTATTGGGAGATGCTGTGGCTGTGGCTGCACGACTGGAG
GAGACGACAGGGTCAAAGATGTTCATTCTGGGTGACACAGCCTACGGCAGCTGCTGCGTGGATGTGCTGG
GTGCTGAGCAAGCTGGAGCTCAGGCTCTCATACATTTTGGCCCTGCCTGCTTAAGCCCTCCAGCCCGCCC
ACTGCCCGTTGCCTTCGTGCTTCGTCAACGTTCTGTGGCCTTGGAGCTCTGTGTCAAGGCCTTTGAGGCC
CAGAACCCAGACCCCAAAGCGCCTGTGGTGCTGCTGAGTGAGCCGGCCTGTGCCCATGCCCTGGAGGCTT
TGGCTACTCTCCTGCGCCCACGGTACCTGGACCTGCTAGTCTCCAGCCCAGCTTTTCCCCAACCAGTGGG
TTCCCTGAGTCCAGAGCCTATGCCCCTAGAGCGTTTTGGGCGCCGCTTCCCCCTTGCCCCAGGGAGGCGT
CTAGAAGAGTATGGTGCCTTCTATGTAGGGGGCTCTAAGGCCAGCCCTGACCCAGACCTTGACCCAGACC
TGAGTCGGCTGCTCTTGGGGTGGGCACCAGGTCAACCCTTCTCCTCCTGCTGTCCAGATACAGGGAAGAC
TCAGGATGAGGGTGCCCGGGCTGGACGGCTAAGGGCACGAAGACGATATCTGGTAGAGAGGGCCAGAGAT
GCCCGCGTGGTAGGGCTGCTGGCAGGCACACTGGGTGTAGCCCAACACCGTGAGGCACTGGCCCACTTGC
GGAACCTGACTCAGGCTGCTGGCAAGCGTAGCTATGTGTTGGCCCTGGGGCGGCCCACCCCTGCCAAGCT
TGCCAACTTCCCTGAGGTGGATGTCTTTGTGCTATTAGCCTGTCCTCTGGGTGCTCTAGCCCCCCAGCTT
TCTGGTAGCTTCTTCCAGCCTATACTGGCACCATGTGAGCTGGAAGCTGCCTGCAACCCTGCCTGGCCAC
CTCCAGGCCTGGCTCCCCACCTCACACATTATGCGGACTTATTGCCTGGCTCTCCCTTCCACGTGGCTCT
CCCACCACCTGAGTCAGAGCTGTGGGAAACCCCAGACGTGTCACTCATTACTGGAGATCTCCGACCCCCA
CCTGCCTGGAAGTCATCAAATGATCATGGAAGCTTGGCTCTGACCCCACGGCCCCAGCTGGAGCTGGCTG
AGAGCAGTCCTGCAGCCTCATTCCTTAGTTCCCGGAGCTGGCAAGGGCTGGAGCCCCGCCTGGGTCAGAC
GCCAGTGACAGAAGCTGTGAGTGGAAGACGAGGGATTGCCATCGCCTATGAGGATGAGGGAAGCGGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201382 protein sequence
Red=Cloning site Green=Tags(s)

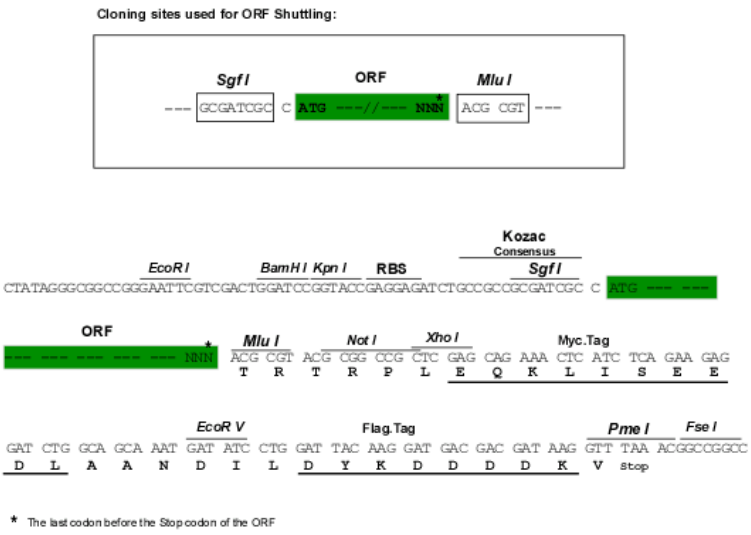
MESMFSSPAEAALQRETGVPGLLTPLPDLDGVYELERVAGFVRDLGCERVALQFPDQLLGDAVAVAARLE
ETTGSKMFILGDTAYGSCCVDVLGAEQAGAQALIHFGPACLSPPARPLPVAFVLRQRSVALELCVKAFEA
QNPDPKAPVVLLSEPACAHALEALATLLRPRYLDLLVSSPAFPQPVGSLSPEPMPLERFGRRFPLAPGRR
LEEYGAFYVGGSKASPDPDLDPDLSRLLLGWAPGQPFSSCCPDTGKTQDEGARAGRLRARRRYLVERARD
ARVVGLLAGTLGVAQHREALAHLRNLTQAAGKRSYVLALGRPTPAKLANFPEVDVFVLLACPLGALAPQL
SGSFFQPILAPCELEAACNPAWPPPGLAPHLTHYADLLPGSPFHVALPPPESELWETPDVSLITGDLRPP
PAWKSSNDHGSLALTPRPQLELAESSPAASFLSSRSWQGLEPRLGQTPVTEAVSGRRGIAIAYEDEGSG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6402_a02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001384

ORF Size: 1467 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_001384.5

RefSeq Size: 2513 bp

RefSeq ORF: 1470 bp

Locus ID: 1802

UniProt ID: Q9BQC3

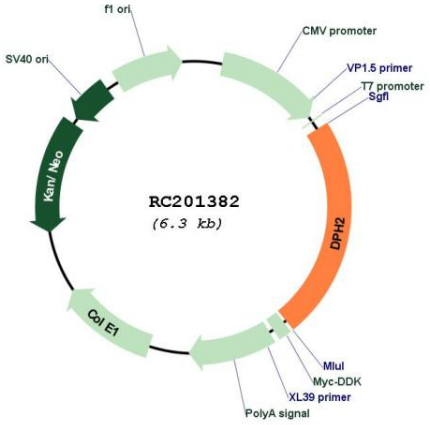
Cytogenetics: 1p34.1

Domains: Diphthamide_syn

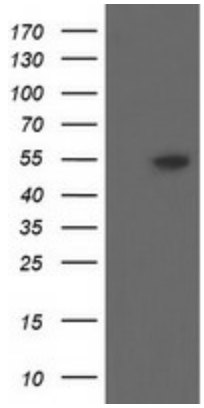
MW: 52.1 kDa

Gene Summary: This gene is one of two human genes similar to the yeast gene dph2. The yeast gene was identified by its ability to complement a diphthamide mutant strain, and thus probably functions in diphthamide biosynthesis. Diphthamide is a post-translationally modified histidine residue present in elongation factor 2 (EF2) that is the target of diphtheria toxin ADP-ribosylation. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jan 2016]

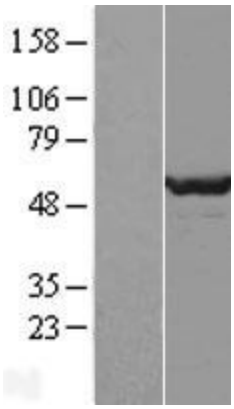
Product images:



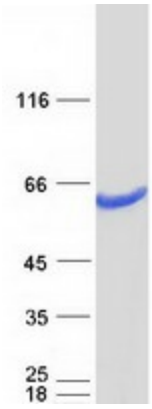
Circular map for RC201382



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DPH2 (Cat# RC201382, 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-DPH2(Cat# [TA504855]). Positive lysates [LY419990] (100ug) and [LC419990] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419990]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201382 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DPH2 protein (Cat# [TP301382]). The protein was produced from HEK293T cells transfected with DPH2 cDNA clone (Cat# RC201382) using MegaTran 2.0 (Cat# [TT210002]).