

## Product datasheet for **RC221230**

### DPH2 (NM\_001039589) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** DPH2 (NM\_001039589) 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:** >RC221230 representing NM\_001039589  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGAGTCGATGTTTAGCAGCCCTGCCGAGGCGGCGCTGCAGCGAGAGACCGGGGTGCCAGGACTGCTTA  
CTCCTCTCCGGACCTGGACGGAGTGTACGAGCTGGAGCGAGTCGCTGGATTTGTCGCGACCTGGGGTG  
TGAACGAGTTGCCTTGCACTTCCCTGACCAGCTATTGGGAGATGCTGTGGCTGTGGCTGCACGACTGGAG  
GAGACGACAGGGTCAAAGATGTTCACTTCTGGGTGACACAGCCTACGGCAGCTGCTGCGTGGATGTGCTGG  
GTGCTGAGCAAGCTGGAGCTCAGGCTCTACATATTTGGCCCTGCTGTTAAGCCCTCCAGCCCGCCC  
ACTGCCGTTGCCTTCGTGCTTCAAGCTTCTGTGGCCTTGGAGCTCTGTGTCAAGCCCTTGGAGGCC  
CAGAACCAGACCCAAAGCGCCTGTGGTGTGCTGAGTGAGCCGGCCTGTGCCATGCCCTGGGCTCTC  
CCTTCCACGTGGCTCTCCACCACCTGAGTCAGAGCTGTGGAAACCCAGACGTGCACTCATTACTGG  
AGATCTCCGACCCACCTGCCTGGAAGTCATCAATGATCATGGAAGCTTGGCTCTGACCCACGGCCC  
CAGCTGGAGCTGGCTGAGAGCAGTCTGCAGCCTATTCTTAGTTCCCGGAGCTGGCAAGGGCTGGAGC  
CCCGCTGGGTGAGACGCCAGTGACAGAAGCTGTGAGTGAAGACGAGGGATTGCCATCGCCTATGAGGA  
TGAGGGAAGCGGC

**ACGCGT**ACGCGGCGGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC221230 representing NM\_001039589  
 Red=Cloning site Green=Tags(s)

MESMFSSPAEALQRETGVPGLLTPLPDLGVYELERVAGFVRDLGCERVALQFPDQLLGDAVAVAAARLE  
 ETTGSKMFI LGDTAYGSCCVDLGAEQAGA QAL IHFGPA CLSPPARLPVAFVLRQRSVALELCVKAFEA  
 QNPDPKAPVVLLSEPA CAHALGSPFHVALPPPESELWETPDVSLITGDLRPPPAAWKSSNDHGSLALTPRP  
 QLELAESSPAASF LSSRSWQGLEPRLGQTPVTEAVSGRRGIAIAYEDEGSG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_001039589

**ORF Size:** 783 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\\_001039589.2](#)

**RefSeq Size:** 1829 bp

**RefSeq ORF:** 786 bp

**Locus ID:** 1802

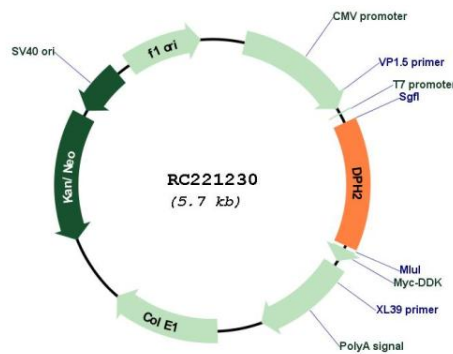
**UniProt ID:** [Q9BQC3](#)

**Cytogenetics:** 1p34.1

**MW:** 27.3 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 RC221230