

Product datasheet for **SC304405**

PRODH (NM_016335) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PRODH (NM_016335) Human Untagged Clone
Tag:	Tag Free
Symbol:	PRODH
Synonyms:	HSPOX2; PIG6; POX; PRODH1; PRODH2; TP53I6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



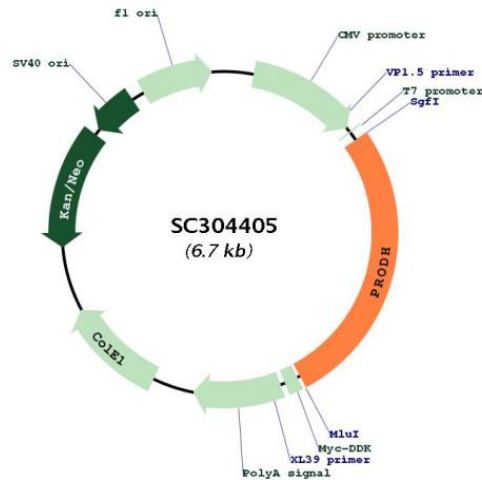
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Fully Sequenced ORF: >SC304405 representing NM_016335.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCTCTGAGGCGCGCCCTGCCCGCTGCGCCCTGCATTCCCGCTTCGTCCCCTGTCCACGGCC
CCGGCTCCCGGAGCAGCCCGCAGCGGGCCAGCGGCCGTGCCAGGAGTGGGTCGGCCACGGCAGTG
CGGCCCGCGGTGCCCGCTGGACTTCGGCAACGCGCAGGAGGCGTACCGCAGCCGGCGAACCTGGGAG
CTGGCGGGAGCCTGCTGGTGTGCGCTTGTGCGCCTGGCCCGCCTGCTGGCGGCCACGAGCAGCTG
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CATTGTTAGCCGGGAGGACCAGGAGTCCATCCAGCCCTGCTTCGGCACTACAGGGCCTTCGGTGTG
AGCGCCATCCTGGACTATGGAGTGGAGGAGGACCTGAGCCCCGAGGAGGCAGAGCACAAGGAGATGGAG
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CGGGCCTTCGGGACCGCAGGAATGGTGTATCAGTCCCGCACCTACTTCTACGCCAATGAGGCCAAG
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AAAGCCACAGAGATGGGCGTGGGCTGATGGTGGATGCCGAGCAGACCTACTTCCAGCCGGCCATCAGC
CGCTGACGCTGGAGATGCAGCGGAAGTTCAATGTGGAGAAGCCGCTCATCTTCAACACATACCAGTGC
TACCTCAAGGATGCCTATGACAATGTGACCCTGGACGTGGAGCTGGCTCGCCGTGAGGGCTGGTGTGTTT
GGGGCCAAGCTGGTGGGGGCGCATACCTGGCCAGGAGCGAGCCGTGCGGCAGAGATCGGCTATGAG
GACCCCATCAACCCACGTACGAGGCCACCAACGCCATGTACCACAGGTGCCTGGACTACGTGTTGGAG
GAGCTGAAGCACAACGCCAAGGCCAAGGTGATGGTGGCTCCCAATGAGGACACAGTGGCCTTTCGA
CTGCGCAGGATGGAGGAGCTGGGCTGCATCCTGCTGACCACCAGGTGTACTTTGGACAGCTGCTAGGC
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CCCGTGTGGAGGTGCTGCCCTACTTGTCCCGCTGCCCTGGAGAACAGCAGCCTCATGAAGGGCACC
CATCGGGAGCGCAGCTGCTGTGGCTGGAGCTTTGAGGGGCTCCGAAGTGGCAACCTTCCATCGC
CCTGCCCTAG
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTAAACGGCCGGC
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Restriction Sites: SgfI-MluI

Plasmid Map:



ACCN: NM_016335

Insert Size: 1803 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_016335.4](#)

RefSeq Size: 2423 bp

RefSeq ORF: 1803 bp

Locus ID: 5625

UniProt ID: [O43272](#)

Cytogenetics: 22q11.21

Protein Families: Druggable Genome

Protein Pathways: Arginine and proline metabolism, Metabolic pathways

MW: 68 kDa

Gene Summary: This gene encodes a mitochondrial protein that catalyzes the first step in proline degradation. Mutations in this gene are associated with hyperprolinemia type 1 and susceptibility to schizophrenia 4 (SCZD4). This gene is located on chromosome 22q11.21, a region which has also been associated with the contiguous gene deletion syndromes, DiGeorge and CATCH22. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Aug 2010]
Transcript Variant: This variant (1) encodes the longer isoform (1). Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.