

Product datasheet for **RG230843**

PRODH (NM_001195226) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PRODH (NM_001195226) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PRODH
Synonyms:	HSPOX2; PIG6; POX; PRODH1; PRODH2; TP53I6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG230843 representing NM_001195226
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAGATGACCTTCTATGGGCATTTTGTAGCCGGGGAGGACCAGGAGTCCATCCAGCCCCTGCTTCGGC
 ACTACAGGGCCTTCGGTGTACGCCCATCTGGACTATGGAGTGGAGGAGGACCTGAGCCCCGAGGAGGC
 AGAGCACAAAGGAGATGGAGTCTGCACCTCAGCTGCGGAGAGGGATGGCAGTGGCACGAATAAGCGGGAC
 AAGCAATACCAGGCCACCGGGCCTTCGGGGACCGCAGGAATGGTGTATCAGTGCCCGCACCTACTTCT
 ACGCCAATGAGGCCAAGTGCACAGCCACATGGAGACATCTTTCGCTGCATCGAAGCCTCAGGTAGAGT
 CAGCGATACGGCTTCATAGCCATTAAGCTCACAGCACTGGGGAGACCCAGTTTCTGCTGCAGTTCTCA
 GAGGTGCTGGCCAAGTGGAGTGGCTTTTCCACCAATGGCTGTGGAGCAAGGGCAGGCGGGCTGGCTG
 CCATGGACACCAAGCTGGAGTGGCGGTGCTGCAGGAAAGTGTGCAAGTTGGGCATCGCATCCAGGGC
 TGAGATTGAGGACTGGTTCACGCGACAGACCCTGGGAGTGTCTGGCACCATGGACCTGCTGGACTGGAGC
 AGCCTCATCGACAGCAGGACCAAGCTGTCCAAGCACCTGGTAGTCCCAACGCACAGACAGGACAGCTGG
 AGCCCCCTGCTGTCCCGTTCACTGAGGAGGAGGACTACAGATGACCAGGATGCTACAGCGGATGGATGT
 CCTGGCCAAGAAAGCCACAGAGATGGGCGTGGCGTGTGGTGGATGCCGAGCAGACCTACTTCCAGCCG
 GCCATCAGCCGCTGACGCTGGAGATGCAGCGGAAGTTCAATGTGGAGAAGCCGCTCATCTTCAACACAT
 ACCAGTGTACCTCAAGGATGCCTATGACAATGTACCCTGGACGTGGAGCTGGCTCGCCGTGAGGGCTG
 GTGTTTTGGGGCAAGCTGGTGGGGGCGCATACCTGGCCAGGAGCGAGCCCGTGGCCAGAGATCGGC
 TATGAGGACCCCATCAACCCACGTACGAGGCCACCAACGCCATGTACCACAGGTGCCTGGACTACGTGT
 TGGAGGACTGAAGCACAAACCCAAAGGCAAGGTGATGGTGGCCTCCCAATGAGGACAGCAGTGGCTT
 TGCACTGCGCAGGATGGAGGAGCTGGCCCTGCATCCTGCTGACCACCGGGTGTACTTTGGACAGCTGCTA
 GGATGTGTGACCAGATCAGTTCCTCGCTGGGCCAGGCTGGCTACCCCGTGTACAAGTACGTGCCCTATG
 GCCCGTGTGGAGTGTGCCCTACTTGTCCCGCTGCCCTGGAGAACAGCAGCCTCATGAAGGGCAC
 CCATCGGGAGCGGAGCTGCTGTGGCTGGAGCTTTGAGCGGCTCCGAAGTGGCAACCTCTTCCATCGC
 CCTGCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

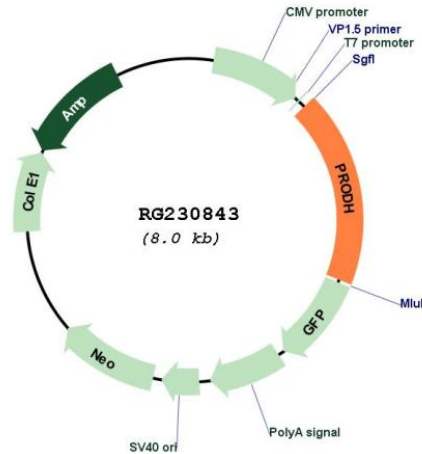
>RG230843 representing NM_001195226
 Red=Cloning site Green=Tags(s)

MKMTFYGHFVAGEDQESIQLLRHYRAFGVSAILDYGVVEEDLSPEEAHKEMESCTSAERDGSNTKRD
 KQYQAHRAFGDRRNGVISARTYFYANEAKCDSHMETFLRCIEASGRVSDDGFIKLTALGRPQFLQFS
 EVLAKWRCFFHQMAVEQQAGLAAMDTKLEVAVLQESVAKLGIASRAEIEDWFTAETLGVSGTMDLLDWS
 SLIDSRTKLSKHLVVPNAQTGQLEPLLRFTEEEELQMRMLQRMDVLAKKATEMGRVLMVDAEQTYFQP
 AISRLLTLEMQRKFNVEKPLIFNTYQCYLKDAYDNVTLDELARREGWCFGAKLVRGAYLAQERARAAEIG
 YEDPINPTYEATNAMYHRCLDYVLEELKHNAKAKVMVASHNEDTVRFALRRMEELGLHPADHRVYFGQLL
 GMCDQISFPLGQAGYPVYKYPYGPVMEVLPYLSRRALENSSLMKGTHRERQLLWLELLRRLRTGNLFHR
 PA

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-MluI

Plasmid Map:


ACCN: NM_001195226

ORF Size: 1476 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:	<ol style="list-style-type: none">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:	<u>NM_001195226.1</u> , <u>NP_001182155.1</u>
RefSeq Size:	2008 bp
RefSeq ORF:	1479 bp
Locus ID:	5625
UniProt ID:	<u>O43272</u>
Cytogenetics:	22q11.21
Protein Families:	Druggable Genome
Protein Pathways:	Arginine and proline metabolism, Metabolic pathways
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]