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Product datasheet for RC220096

PRODH (NM_016335) Human Tagged ORF Clone

Product data:

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

View online »

ORF Nucleotide Sequence:

>RC220096 representing NM_016335
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTCTGAGGCGCGCCCTGCCCGCGCTGCGCCCCTGCATTCCCCGCTTCGTCCCGCTGTCCACGGCGC
CGGCCTCCCGCGAGCAGCCCGCAGCGGGCCCAGCGGCCGTGCCAGGAGGTGGGTCGGCCACGGCAGTGCG
GCCGCCGGTGCCCGCCGTGGACTTCGGCAACGCGCAGGAGGCGTACCGCAGCCGGCGAACCTGGGAGCTG
GCGCGGAGCCTGCTGGTGCTGCGCTTGTGCGCCTGGCCCGCGCTGCTGGCGCGCCACGAGCAGCTGCTGT
ATGTTTCCAGGAAACTTCTAGGACAGAGGCTATTCAACAAGCTCATGAAGATGACCTTCTATGGGCATTT
TGTAGCCGGGGAGGACCAGGAGTCCATCCAGCCCCTGCTTCGGCACTACAGGGCCTTCGGTGTCAGCGCC
ATCCTGGACTATGGAGTGGAGGAGGACCTGAGCCCCGAGGAGGCAGAGCACAAGGAGATGGAGTCCTGCA
CCTCAGCTGCGGAGAGGGATGGCAGTGGCACGAATAAGCGGGACAAGCAATACCAGGCCCACCGGGCCTT
CGGGGACCGCAGGAATGGTGTCATCAGTGCCCGCACCTACTTCTACGCCAATGAGGCCAAGTGCGACAGC
CACATGGAGACATTCTTGCGCTGCATCGAAGCCTCAGGTAGAGTCAGCGATGACGGCTTCATAGCCATTA
AGCTCACAGCACTGGGGAGACCCCAGTTTCTGCTGCAGTTCTCAGAGGTGCTGGCCAAGTGGAGGTGCTT
CTTTCACCAAATGGCTGTGGAGCAAGGGCAGGCGGGCCTGGCTGCCATGGACACCAAGCTGGAGGTGGCG
GTGCTGCAGGAAAGTGTCGCAAAGTTGGGCATCGCATCCAGGGCTGAGATTGAGGACTGGTTCACGGCAG
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GAGGAGGAGCTACAGATGACCAGGATGCTACAGCGGATGGATGTCCTGGCCAAGAAAGCCACAGAGATGG
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CGAGGCCACCAACGCCATGTACCACAGGTGCCTGGACTACGTGTTGGAGGAGCTGAAGCACAACGCCAAG
GCCAAGGTGATGGTGGCCTCCCACAATGAGGACACAGTGCGCTTTGCACTGCGCAGGATGGAGGAGCTGG
GCCTGCATCCTGCTGACCACCGGGTGTACTTTGGACAGCTGCTAGGCATGTGTGACCAGATCAGCTTCCC
GCTGGGCCAGGCTGGCTACCCCGTGTACAAGTACGTGCCCTATGGCCCCGTGATGGAGGTGCTGCCCTAC
TTGTCCCGCCGTGCCCTGGAGAACAGCAGCCTCATGAAGGGCACCCATCGGGAGCGGCAGCTGCTGTGGC
TGGAGCTCTTGAGGCGGCTCCGAACTGGCAACCTCTTCCATCGCCCTGCC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220096 representing NM_016335
Red=Cloning site Green=Tags(s)

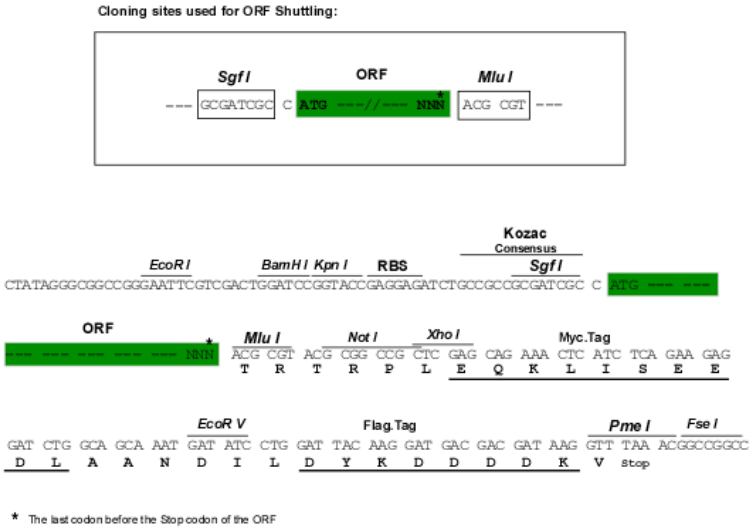
MALRRALPALRPCIPRFVPLSTAPASREQPAAGPAAVPGGGSATAVRPPVPAVDFGNAQEAYRSRRTWEL
ARSLLVLRLCAWPALLARHEQLLYVSRKLLGQRLFNKLMKMTFYGHFVAGEDQESIQPLLRHYRAFGVSA
ILDYGVEEDLSPEEAEHKEMESCTSAAERDGSGTNKRDKQYQAHRAFGDRRNGVISARTYFYANEAKCDS
HMETFLRCIEASGRVSDDGFIAIKLTALGRPQFLLQFSEVLAKWRCFFHQMAVEQGQAGLAAMDTKLEVA
VLQESVAKLGIASRAEIEDWFTAETLGVSGTMDLLDWSSLIDSRTKLSKHLVVPNAQTGQLEPLLSRFTE
EEELQMTRMLQRMDVLAKKATEMGVRLMVDAEQTYFQPAISRLTLEMQRKFNVEKPLIFNTYQCYLKDAY
DNVTLDVELARREGWCFGAKLVRGAYLAQERARAAEIGYEDPINPTYEATNAMYHRCLDYVLEELKHNAK
AKVMVASHNEDTVRFALRRMEELGLHPADHRVYFGQLLGMCDQISFPLGQAGYPVYKYVPYGPVMEVLPY
LSRRALENSSLMKGTHRERQLLWLELLRRLRTGNLFHRPA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg4000_b04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_016335

ORF Size: 1800 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.

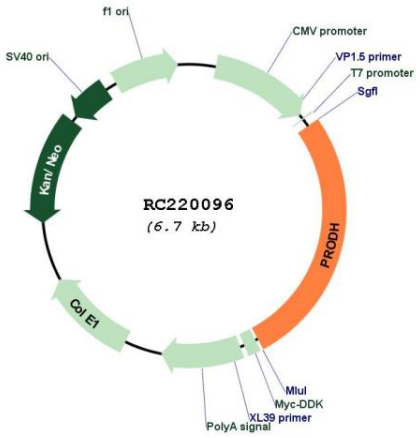
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

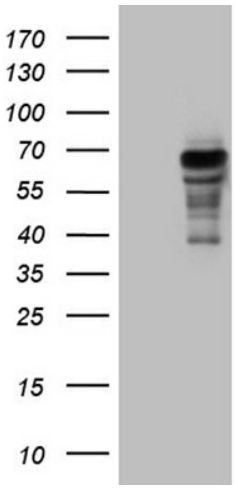
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_016335.6
RefSeq Size:	2400 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:	67.8 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]

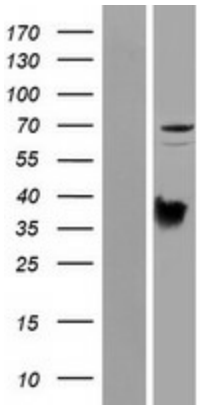
Product images:



Circular map for RC220096



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PRODH (Cat# RC220096, 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-PRODH (Cat# [TA810471])(1:2000). Positive lysates [LY414044] (100ug) and [LC414044] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY414044]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220096 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).