

Product datasheet for **MR207277**

Prodh2 (NM_019546) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Prodh2 (NM_019546) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Prodh2
Synonyms:	2510028N04Rik; 2510038B11Rik; MmPOX; MmPOX1; POX1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR207277 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGATCTGGACGCGTCTGCCCTGTATGGCCCCTCCAAGCCCTCTACAGGTGGCTGGCAGCCCCTGCGCT
 TTGATGGTGGGGCCTTCCATGTCAAGGGAACCGCAGAAGCTGGCAGGGCTTTGCTAGTGCTTCGCTATG
 CGCCTGGCCCCCTTTGGTCACTCATGGACTAGCGTTTCAGGCCTGGTCTCAGCGACTCCTGGGATCCCGG
 CTCTCAGGCGCACTTCTTCGAGCATCCATCTACGGCAGTTTGTGGCCGGGAGACAGCAGAGGAAGTGA
 GGAAGTGTGTCGGGCAGCTGCAGGCCCTGGGACTCCAGCCCCTGTTGGCAGTACCACCGAGGAGGAACC
 AGACTCCACTGCCAAGACCAGTGAAGTCTGGTATGAGGAGAACCTTAGCGCCATGCTGCGCTGTGTGGAC
 TTATCCCAGCCCTCGTGGACGCCACGGCCAGCCAGGAACAGCCTCATGCAGCTGAAGGTGACCGCGC
 TAGCCAGCACTCGGCTTTGTAAGAGCTGTCGGCTTGATCCAAAGACCCAGAGGCTCCTCGGAGCTGAG
 CCCTGAGAGGCTGGCAGAAGCCATGGACTCGGGTGGAACTCCAGCTCTCCTGCCTCAGCACAGAACAG
 AATCAGCACTGCAGGCCTCCCTCAGCCGCTTGACCCAGTGGCAGCAGCAGCCCGGGCGAAGTGTGTGC
 GGCTGCTGGTAGATGCTGAATATACTTTCAATAACCTGCACTGTCCCTGCTGGTGGCTGCCCTGGCTGT
 GCGCTGGAACAGCCCTGAGGAAGGTGGTCCGTGGGTGTGGAACACTTACCAGGCCTATCTAAAGGACACT
 CACCAACGGCTGGAGCAGGACGCCGAGGAGCAGCACAAGGCTGGCCTGGCATTGGGGTGAAGTTGGTGC
 GAGGTGCCTATCTGGACAAGGAGAGATCCATGACACAGCTCCAAGGGAAGGAAGACTGTACCCAGCCTGA
 CTATGAGGCCACTAGTCGGAGTTACAGCCGCTGTCTAGAGCTGATGCTGCGCTGCGTGTGCAACACGGT
 CCCCGTGTACCTCATGGTGGCTTCCACAATGAAGAATCCGTTCCGAGGCAACTAAGCGCATGTGGG
 AGCTGGGCATTCCTCTGGATGGCCTGTCTGTTTGGACAACCTCTGGGATGTGTGACCATGTCTCCCT
 GGCATTAGGGCAGGCTGGATATATGGTGTACAAGTCTATCCCTATGGCTGCCTGGAGGAGGTGATTCCC
 TACCTGATCCGAAGAGCCAGGAGAACAGGAGTGTGCTGCAGGGTGCCCGCAGGAGCAGGCACTACTCA
 GCCAGGAAGTGTGGCGGAGACTGCTGGGAAGGACGGCC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>MR207277 protein sequence
 Red=Cloning site Green=Tags(s)

MIWTRLPLYGPSKSTGGWQPLRFDGGAFHVKGTAELARALLVLRLCAWPPLVTHGLAFQAWSQRLGSR
 LSGALLRASIYGFVAGETAEEVRNCVQLQALGLQPLLAVPTEEEPSTAKTSEVWYEENLSAMLRVCD
 LSRALVDAHGPARNSLMQLKVTALASTRLCKELSAWIQRPRGSELSPERLAEAMDSGRNLQLSCLSTEQ
 NQHLQASLSRLHRVAQHARAKCVRLLVDAEYTFINPALSLLVAAAVRWNSPEEGPWVWNTYQAYLKDT
 HQRLAQDAEAAHKAGLAFGVKLVRGAYLDKERSMTQLQKEDCTQPDYEATSRSYSRCLMLRCSNHG
 PPCHLMVASHNEESVRQATKRMWELGIPLDGPVCFGQLLGMCDHVSLALGQAGYMYKSIPIYGCLEEVIP
 YLIRRAQENRSVLQGARREQALLSQELWRLLGRTA

SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-RsrII

Cloning Scheme:


ACCN: NM_019546

ORF Size: 1371 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_019546.5](#)

RefSeq Size: 1817 bp

RefSeq ORF: 1371 bp

Locus ID: 56189

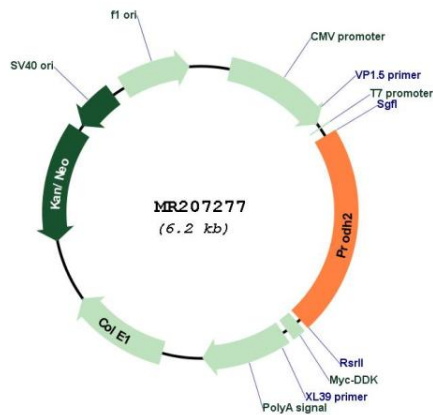
UniProt ID: [Q8VCZ9](#)

Cytogenetics: 7 B1

MW: 50.7 kDa

Gene Summary: Dehydrogenase that converts trans-4-L-hydroxyproline to delta-1-pyrroline-3-hydroxy-5-carboxylate (Hyp) using ubiquinone-10 as the terminal electron acceptor. Can also use proline as a substrate but with a very much lower efficiency. Does not react with other diastereomers of Hyp: trans-4-D-hydroxyproline and cis-4-L-hydroxyproline. Ubiquinone analogs such as menadione, duroquinone and ubiquinone-1 react more efficiently than oxygen as the terminal electron acceptor during catalysis.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR207277