

Product datasheet for **MG207277**

Prodh2 (NM_019546) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Prodh2 (NM_019546) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Prodh2
Synonyms:	2510028N04Rik; 2510038B11Rik; MmPOX; MmPOX1; POX1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG207277 representing NM_019546
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGATCTGGACGGCTCTGCCGTGTATGGCCCCTCCAAGCCCTCTACAGGTGGCTGGCAGCCCTGCGCT
 TTGATGGTGGGGCTTCCATGTCAAGGGAACCGCAGAAGCTGGCACGGGCTTTGCTAGTGCTTCGCCTATG
 CGCCTGGCCCCCTTTGGTCACTCATGGACTAGCGTTTCAGGCCTGGTCTCAGCGACTCCTGGGATCCCGG
 CTCTCAGGCGCACTTCTTCGAGCATCCATCTACGGGCAGTTTGTGGCCGGGGAGACAGCAGAGGAAGTGA
 GGAAGTGTGTCGGGCAGCTGCAGGCCCTGGGACTCCAGCCCTGTTGGCAGTACCCACCGAGGAGGAACC
 AGACTCCACTGCCAAGACCAGTGAAGTCTGGTATGAGGAGAACCCTAGCGCCATGCTGCGCTGTGTGGAC
 TTATCCCAGCCCTCGTGGACGCCACGGCCAGCCAGGAACAGCCTCATGCAGTGAAGGTGACCCGCGC
 TAGCCAGCACTCGGCTTTGTAAGAGCTGTCGGCTTGGATCCAAAGACCCAGAGGCTCCTCGGAGCTGAG
 CCCTGAGAGGCTGGCAGAAGCCATGGACTCGGGTCCGAACTCCAGCTCTCCTGCCTCAGCACAGAACAG
 AATCAGCACCTGCAGGCCCTCCCTCAGCCGCTTGCACCGAGTGGCACAGCAGCCCGGGCGAAGTGTGTGC
 GGCTGCTGGTAGATGCTGAATATACTTTTACATAACCCTGCACTGTCCCTGCTGGTGGCTGCCCTGGCTGT
 GCGCTGGAACAGCCCTGAGGAAGGTGGTCCGTGGGTGTGGAACACTTACCAGGCCATCTAAAGGACACT
 CACCAACGGCTGGAGCAGGACGCCGAGGACAGCACACAAGGCTGGCCTGGCATTGGGGTGAAGTTGGTGC
 GAGGTGCCTATCTGGACAAGGAGAGATCCATGACACAGCTCCAAGGGAAGGAAGACTGTACCCAGCCTGA
 CTATGAGGCCACTAGTCGGAGTTACAGCCGCTGTCTAGAGCTGATGCTGCGCTGCGTGTGCAACACGGT
 CCCCGTGTACCTCATGGTGGCTTCCCACAATGAAGAATCCGTTGCCAGGCACTAAGCGCATGTGGG
 AGCTGGGCATTCCTCTGGATGGCCTGTCTGTTTGGACAACCTTCTGGGCATGTGTGACCATGTCTCCCT
 GGCAATAGGGCAGGCTGGATATATGGTGTACAAGTCTATTCCCTATGGCTGCCTGGAGGAGGTGATTCCC
 TACCTGATCCGAAGAGCCAGGAGAACAGGAGTGTGCTGCAGGGTCCCCGAGGGAGCAGGCACTACTCA
 GCCAGGAAGTGTGGCGGAGACTGCTGGGAAGGACGGCC

AG**GCGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG207277 representing NM_019546
 Red=Cloning site Green=Tags(s)

MIWTRLPLYGPSKPSTGGWQPLRFDGGAFHVKGTAELARALLVLRLCAWPPLVTHGLAFQAWSQRLLGSR
 LSGALLRASIYGQFVAGETAEEVRNCVGLQALGLQPLLAVPTEEEPDSTAKTSEVWYEENLSAMLRCD
 LSRALVDAHGPARNSLMQLKVTALASTRLCKELSAWIQRPRGSELSPERLAEAMDSGRNLQLSCLSTEQ
 NQHLQASLSRLHRVAQHARAKCVRLLVDAEYTFINPALSLLVAALAVRWNSPEEGPWVWNTYQAYLKDT
 HQRLEQDAEAAHKAGLAFGVKLVIRGAYLDKERSMTQLQKEDCTQPDYEATSRSYSRCELEMLRCSVNHG
 PPCHLMVASHNEESVRQATKRMWELGIPLDGPVCFGQLLGMCDHVSLLALGQAGYMYKSIPIYGCLEEVIP
 YLIRRAQENRSVLQGARREQALLSQELWRRLLGRTA

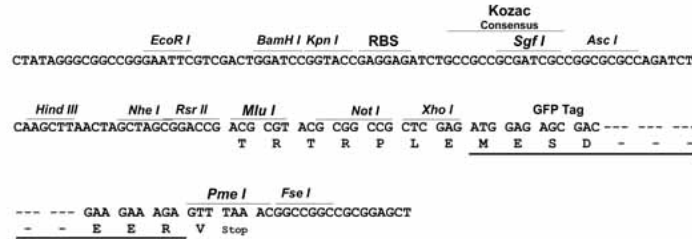
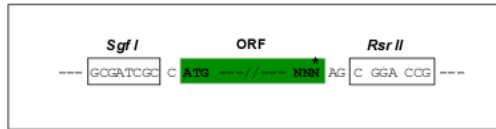
SGP**TRRRLE** - GFP Tag - V

Restriction Sites:

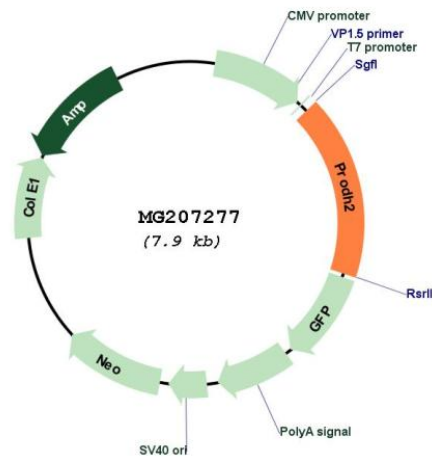
Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_019546

ORF Size: 1368 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_019546.5</u>
RefSeq Size:	1818 bp
RefSeq ORF:	1371 bp
Locus ID:	56189
UniProt ID:	<u>Q8VCZ9</u>
Cytogenetics:	7 B1
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]