

## Product datasheet for **MG225860**

### **Tyr (NM\_011661) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Tyr (NM_011661) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Tyr
Synonyms:	albino; c; Oca1; skc35
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG225860 representing NM\_011661  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGTTCTTGGCTGTTTTGTATTGCCTTCTGTGGAGTTCCAGATCTCTGATGGCCATTTCTCGAGCCT  
 GTGCCTCCTCTAAGAAGTTGTTGGCAAAAGAATGCTGCCACCATGGATGGGTGATGGGAGTCCCTGCGG  
 CCAGCTTTCAGGCAGAGGTTCTGCCAGGATATCCTTCTGTCCAGTGCACCATCTGGACCTCAGTCCCC  
 TTCAAAGGGTGGATGACCGTGAGTCTGGCCCTCTGTGTTTTATAATAGGACCTGCCAGTGCTCAGGCA  
 ACTTCATGGGTTCAACTGCGGAAACTGTAAGTTTGGATTTGGGGGCCAAATTGTACAGAGAAGCGAGT  
 CTTGATTAGAAGAAACATTTTTGATTTGAGTGTCTCCGAAAAGAATAAGTTCTTTTCTTACCTCACTTTA  
 GCAAAACATACTATCAGCTCAGTCTATGTCATCCACAGGCACCTATGGCCAAATGAACAATGGGTCAA  
 CACCCATGTTAATGATATCAACATCTACGACCTTTTGTATGGATGCATTACTATGTGTCAAGGGACAC  
 ACTGCTTGGGGCTCTGAAATATGGAGGGACATTGATTTGCCCATGAAGCACCAGGTTTCTGCCTTGG  
 CACAGACTTTTCTGTTATTGTGGGAACAAGAAATTCGAGAACTAACTGGGGATGAGAACTTCACTGTTC  
 CATACTGGGATTGGAGAGATGCAGAAAAGTGTGACATTTGCACAGATGAGTACTTGGGAGGTCGTACCC  
 TGAAAATCCTAACTTACTCAGCCAGCATCCTTCTTCTCCTGGCAGATCATTGTAGCAGATCAGAA  
 GAGTATAATAGCCATCAGGTTTTATGCGATGGAACACCTGAGGGACCACTATTACGTAATCCTGGAACC  
 ATGACAAAGCCAAAACCCAGGCTCCCATCTTCAGCAGATGTGGATTTTGTCTGAGTTTGACCCAGTA  
 TGAATCTGGATCAATGGATAGAAGTCCCAATTTACGCTTTAGAAACACACTGGAAGGATTTGCCAGTCCA  
 CTCACAGGGATAGCAGATCCTTCTCAAAGTAGCATGCACAATGCCTTACATATCTTTATGAATGGAACAA  
 TGTCCCAAGTACAGGGATCGGCCAACGATCCCATTTTTCTTCTTACCATGCTTTTGTGGCAGTATTTT  
 TGAACAATGGCTGCGAAGGCACCGCCCTCTTTTGGAAAGTTTACCCAGAAGCCAATGCACCTATCGGCCAT  
 AACAGAGACTCTTACATGGTTCTTTCATACCGCTCTATAGAAATGGTGATTTCTTCATAACATCCAAGG  
 ATCTGGGATATGACTACAGCTACCTCCAAGAGTACAGTCCAGGCTTTTACAGAAATTATATTGAGCCTTA  
 CTTGGAACAAGCCAGTCGTATCTGGCCATGGCTTCTTGGGGCAGCACTGGTGGGAGCTGTTATTGCTGCA  
 GCTCTCTGGGCTTAGCAGTAGGCTATGCCTTCAGAAGAAGAAGAAGAAGAAGCAACCCAGGAGGAAA  
 GGCAGCCACTCCTCATGGACAAAGACGACTACCACAGCTTGTGTATCAGAGCCATCTG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG225860 representing NM\_011661  
 Red=Cloning site Green=Tags(s)

MFLAVLYCLLWSFQISDGHFPRACASSKNLLAKECCPPWMDGSPCGQLSGRSGCQDILLSSAPSGPQFP  
 FKGVDDRESWPSVFNRTCQCSGNFMGFNCGNCKFGFGPNCTEKRVLIRRNIIDLVSSEKNKFFSYLTL  
 AKHTISSVYVYIPTGTGQMNNGSTPMFNDINIYDLFVWMHYVSRDILLGGSEIWRDIDFAHEAPGLPW  
 HRLFLLLWEQEIRELTGDNFTVPYWDWRDAENCDICTDEYLGGRRHPENPNLLSPASFFSSWQIICSRSE  
 EYNHQVLCVLTGPEGLLRNPGNHDKAKTPRLPSSADVEFCLSLTQYESGSMRTANFSFRNTLEGFASP  
 LTGIADPSQSSMHNALHIFMNGTMSQVQGSANDPFLHLLHAFVDSIFEQWLRHRPLLEVPEANAPIGH  
 NRDSYMPFIPLYRNGDFFITSKDLGYDYSYLQESDPGFYRNYIEPYLEQASRIWPWLLGAALVGAVIAA  
 ALSGLSSRLCLQKKKKKQPQEERQPLMDKDDYHSLLYQSHL

**TRTRPLE** - GFP Tag - V

**Chromatograms:**

[https://cdn.origene.com/chromatograms/ja1859\\_c06.zip](https://cdn.origene.com/chromatograms/ja1859_c06.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_011661

**ORF Size:** 1599 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](mailto: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.

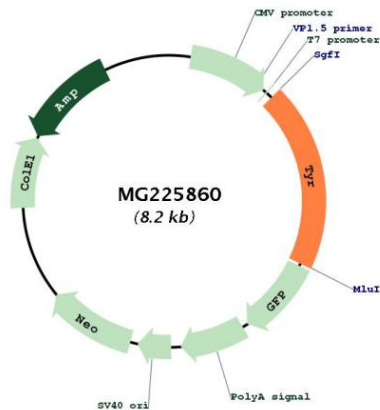
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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\\_011661.5, NP\\_035791.1](#)  
**RefSeq Size:** 3307 bp  
**RefSeq ORF:** 1602 bp  
**Locus ID:** 22173  
**UniProt ID:** [P11344](#)  
**Cytogenetics:** 7 49.01 cM

**Gene Summary:** This is a copper-containing oxidase that functions in the formation of pigments such as melanins and other polyphenolic compounds. Catalyzes the initial and rate limiting step in the cascade of reactions leading to melanin production from tyrosine. In addition to hydroxylating tyrosine to DOPA (3,4-dihydroxyphenylalanine), also catalyzes the oxidation of DOPA to DOPA-quinone, and possibly the oxidation of DHI (5,6-dihydroxyindole) to indole-5,6 quinone (PubMed:2494997, PubMed:2517217, PubMed:1537333).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MG225860