

## Product datasheet for **RG214662**

### Ornithine Carbamoyltransferase (OTC) (NM\_000531) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ornithine Carbamoyltransferase (OTC) (NM_000531) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Ornithine Carbamoyltransferase
Synonyms:	OCTD; OTCD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG214662 representing NM_000531 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGTTTAATCTGAGGATCCTGTAAACAATGCAGCTTTTAGAAATGGTCACAACCTTCATGGTTCGAA  
ATTTTCGGTGTGGACAACCACTACAAAAATAAGTGCAGCTGAAGGGCCGTGACCTTCTCACTCTAAAAA  
CTTTACCGGAGAAGAAATTAATATATGCTATGGCTATCAGCAGATCTGAAATTTAGGATAAACAGAAA  
GGAGAGTATTTGCCTTTATTGCAAGGGAAGTCTTAGGCATGATTTTTGAGAAAAGAAGTACTCGAACAA  
GATTGTCTACAGAAACAGGCTTTGCACTTCTGGGAGGACATCCTTGTTTTCTTACCACACAAGATATTCA  
TTTGGGTGTGAATGAAAGTCTCACGGACACGGCCCGTGTATTGTCTAGCATGGCAGATGCAGTATTGGCT  
CGAGTGTATAACAATCAGATTTGGACACCCTTGCTAAAGAAGCATCCATCCCAATTATCAATGGGCTGT  
CAGATTTGTACCATCCTATCCAGATCCTGGCTGATTACCTCACGCTCCAGGAACACTATAGCTCTCTGAA  
AGGTCTTACCCTCAGCTGGATCGGGATGGGAACAATATCCTGCACTCCATCATGATGAGCGCAGCGAAA  
TTCGGAATGCACCTTCAGGCAGCTACTCAAAGGGTTATGAGCCGGATGCTAGTGTAAACCAAGTTGGCAG  
AGCAGTATGCCAAAGAGAATGGTACCAAGCTGTTGCTGACAAATGATCCATTGGAAGCAGCGCATGGAGG  
CAATGTATTAATTACAGACACTTGATAAAGACTGCTAAAGTTGCTGCCTCTGACTGGACATTTTTACACTGCT  
TTCCAAGGTTACCAGGTTACAATGAAGACTGCTAAAGTTGCTGCCTCTGACTGGACATTTTTACACTGCT  
TGCCAGAAAGCCAGAAGAAGTGGATGATGAAGTCTTTTATTCTCCTCGATCACTAGTGTCCAGAGGC  
AGAAAACAGAAAGTGGACAATCATGGCTGTCATGGTGTCCCTGCTGACAGATTACTCACCTCAGCTCCAG  
AAGCTAAATTT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG214662 representing NM\_000531  
 Red=Cloning site Green=Tags(s)

MLFNLRIILLNNAAFRNHNFMRNFRCCGQPLQNKVQLKGRDLLTLKNFTGEEIKYMLWLSADLKFRKQK  
 GEYLPLLQKSLGMI FEKRSTRTRLSTETGFALLGGHPCFLTQDIHLGVNESLTDARVLSMADAVLA  
 RYVKQSDLDLAKAEASIP IINGLSDLYHP IQILADYLT LQEHYSSLKGLT LSWIGDGNNILHSIMMSAAK  
 FGMHLQAATPKGYEPDASVTKLAEQYAKENGTLLLLTNDPLEAAHGGNVLI TDTWISMGQEEKKRLQA  
 FQGYQVTMKTAKVAASDWTFLHCLPRKPEEVDDEVFYSPRSLVFPEAENRKWTIMAVMVSLLTDYSPQLQ  
 KPKF

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000531

**ORF Size:** 1062 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\\_000531.3](#), [NP\\_000522.3](#)

**RefSeq Size:** 1927 bp

**RefSeq ORF:** 1065 bp

**Locus ID:** 5009

**UniProt ID:** [P00480](#)

**Cytogenetics:** Xp11.4

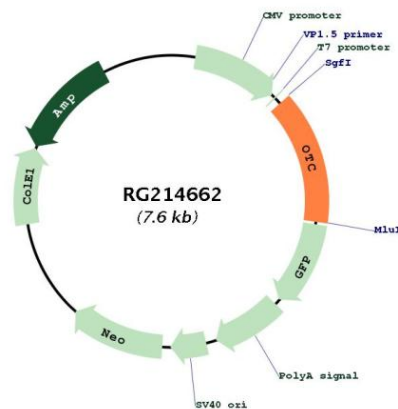
**Domains:** OTCace, OTCace\_N

**Protein Families:** Druggable Genome

**Protein Pathways:** Arginine and proline metabolism, Metabolic pathways

**Gene Summary:** This nuclear gene encodes a mitochondrial matrix enzyme. Missense, nonsense, and frameshift mutations in this enzyme lead to ornithine transcarbamylase deficiency, which causes hyperammonemia. Since the gene for this enzyme maps close to that for Duchenne muscular dystrophy, it may play a role in that disease also. [provided by RefSeq, Jul 2008]

## Product images:



Circular map for RG214662