

Product datasheet for **RG201610**

ornithine aminotransferase (OAT) (NM_000274) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ornithine aminotransferase (OAT) (NM_000274) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ornithine aminotransferase
Synonyms:	GACR; HOGA; OATASE; OKT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG201610 representing NM_000274 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTTTTCCAACTAGCACATTTGCAGAGGTTTGTCTACTTAGTCGCGGAGTTCATTCTTCAGTGGCTT
CTGCTACATCTGTTGCACTAAAAACAGTCCAAGGCCCTCCAACCTCTGATGACATTTTTGAAAGGGA
ATATAAGTATGGTGCACACAACCTACCATCCTTTACCTGTAGCCCTGGAGAGAGGAAAAGGATTTACTTA
TGGGATGTAGAAGGCAGAAAATATTTGACTTCTGAGTTCCTACAGTGTCTCAACCAAGGCATTGTC
ACCCCAAGATTGTGAATGCTCTGAAGAGTCAAGTGGACAAATTGACCTAACATCTAGAGCTTTCTATAA
TAACGTAATGGTGAATATGAGGAGTATATTACTAACTTTTCACTACCACAAAGTTCTTCTATGAAT
ACAGGAGTGGAGGCTGGAGAGACTGCCTGTAACTAGCTCGTAAGTGGGGCTATACCGTGAAGGGCATT
AGAAATACAAAGCAAAGATTGTTTTGCAGCTGGGAACCTCTGGGGTAGGACGTTGTCTGTATCTCCAG
TTCCACAGACCAACAGTTACGATGGTTTTGGACCATTATGCCGGGATTCGACATCATCCCTATAAT
GATCTGCCCGACTGGAGCGTCTTCCAGGATCCAAATGTGGCTGCGTTCATGGTAGAACCAATTCAGG
GTGAAGCAGGCGTTGTTGTTCCGGATCCAGGTTACCTAATGGGAGTGGAGAGCTCTGCACCAGGCACCA
GGTTCTCTTTATTGCTGATGAAATACAGACAGGATTGGCCAGAAGTGGTAGATGGCTGGCTGTTGATTAT
GAAAATGTCAGACCTGATATAGTCTCTTGGAAAGGCCCTTTCTGGGGCTTATACCTGTGTCTGCAG
TGCTGTGTGATGATGACATCATGCTGACCATTAAGCCAGGGGAGCATGGGTCCACATACGGTGGCAATCC
ACTAGGCTGCCGAGTGGCCATCGCAGCCCTTGAGGTTTTAGAAGAAGAAAACCTTGCTGAAAATGCAGAC
AAATTGGCATTATCTTGAGAAATGAACTCATGAAGCTACCTTCTGATGTTGTAAGTCCGTAAGAGGAA
AAGGATTATTAATGCTATTGTCTAAAGAAACCAAGATTGGGATGCTTGAAGGTGTGTCTACGACT
TCGAGATAATGGACTTCTGGCCAAGCCAACCCATGGCGACATTATCAGGTTTGGCCCTCCGCTGGTGATC
AAGGAGGATGAGCTTCGAGAGTCCATTGAAATTATAACAAGACCATCTGTCTTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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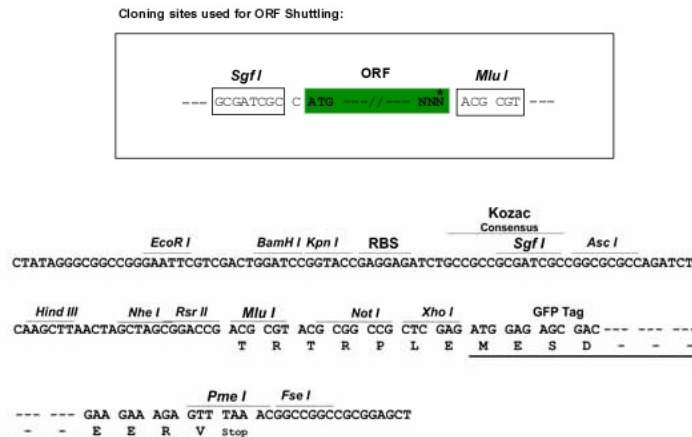
Protein Sequence: >RG201610 representing NM_000274
 Red=Cloning site Green=Tags(s)

MFSKLAHLQRFVLSRGVHSSVASATSVATKKTVQGPPTSDDIFEREYKYGAHNYHPLPVALERKGGIYL
 WDVEGRKYFDLSSYSVAVNQGHCHPKIVNALKSQVDKLTLSRAFYNNVLGEYEEYITKLFNYHKVLP
 TGVEAGETACKLARKWGYTVKGIQKYKAKIVFAAGNFWGRTLSAISSTDPSTSYDGFPGFMPGFDIIPYN
 DLPALERALQDPNVAAFMVEPIQGEAGVVVDPDGYLMGVRELCTRHOVLFIADEIQTGLARTGRWLAVDY
 ENVRPDIIVLLGKALSGGLYPVSAVLCDDIMLTIKPEHGSTYGGNPLGCRVAIAALEVLEEENLAENAD
 KLGIIILRNELMKLPDSDVVTAVRKGKLLNAIVIKETKDWDAWKVCLRLRDNGLLAKPTHGDIIRFAPPLVI
 KEDELRESIEIINKTILSF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000274

ORF Size: 1317 bp

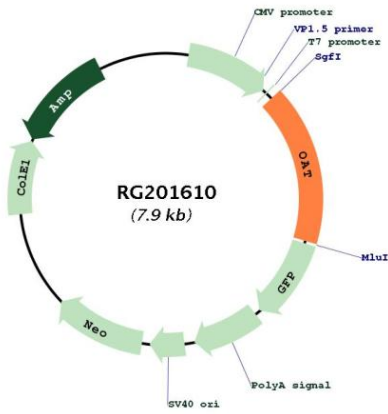
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000274.1 , NP_000265.1
RefSeq Size:	2013 bp
RefSeq ORF:	1320 bp
Locus ID:	4942
UniProt ID:	P04181
Cytogenetics:	10q26.13
Domains:	aminotran_3
Protein Families:	Druggable Genome
Protein Pathways:	Arginine and proline metabolism, Metabolic pathways
Gene Summary:	This gene encodes the mitochondrial enzyme ornithine aminotransferase, which is a key enzyme in the pathway that converts arginine and ornithine into the major excitatory and inhibitory neurotransmitters glutamate and GABA. Mutations that result in a deficiency of this enzyme cause the autosomal recessive eye disease Gyrate Atrophy. Alternatively spliced transcript variants encoding different isoforms have been described. Related pseudogenes have been defined on the X chromosome. [provided by RefSeq, Jan 2010]

Product images:



Circular map for RG201610