

## Product datasheet for **RG229852**

### ornithine aminotransferase (OAT) (NM\_001171814) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ornithine aminotransferase (OAT) (NM_001171814) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	OAT
Synonyms:	GACR; HOGA; OATASE; OKT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG229852 representing NM_001171814 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTTTTCCAACTAGCACATTTGCAGAGGTTTGTCTACTTAGTCGCGGAGTTCATTCTTCAGTGGCTT  
CTGCTACATCTGTTGCACTAAAAACAGTCCAAGGCCCTCCAACCTCTGATGACATTTTTGAAAGGGA  
ATATAAGTATGGTGCACACAACCTACCATCCTTTACCTGTAGCCCTGGAGAGAGGAAAAGGATTTACTTA  
TGGGATGTAGAAGGCAGAAAATATTTGACTTCCTGAGTTCCTACAGTGTCTCAACCAAGGCATTGTC  
ACCCCAAGATTGTGAATGCTCTGAAGAGTCAAGTGGACAAATTGACCTTAACATCTAGAGCTTTCTATAA  
TAACGTACTTGGTGAATATGAGGAGTATATTACTAACTTTTCACTACCACAAAGTTCTTCTATGAAT  
ACAGGAGTGGAGGCTGGAGAGACTGCCTGTAACTAGCTCGTAAGTGGGGCTATACCGTGAAGGGCATT  
AGAAATACAAAGCAAAGATTGTTTTGCAGCTGGGAACCTCTGGGGTAGGACGTTGTCTGTATCTCCAG  
TTCCACAGACCAACAGTTACGATGGTTTTGGACCATTATGCCGGATTTCGACATCATCCCTATAAT  
GATCTGCCCGACTGGAGCGTCTTCCAGGATCCAAATGTGGCTGCGTTCATGGTAGAACCAATTCAGG  
GTGAAGCAGGCGTTGTTGTTCCGGATCCAGGTTACCTAATGGGAGTGGAGAGCTCTGCACCAGGCACCA  
GGTTCTCTTTATTGCTGATGAAATACAGACAGGATTGGCCAGAAGTGGTAGATGGCTGGCTGTTGATTAT  
GAAAATGTCAGACCTGATATAGTCTCTTGGAAAGGCCCTTTCTGGGGCTTATACCTGTGCTGCAG  
TGCTGTGTGATGATGACATCATGCTGACCATTAAGCCAGGGGAGCATGGGTCCACATACGGTGGCAATCC  
ACTAGGCTGCCGAGTGGCCATCGCAGCCCTTGAGGTTTTAGAAGAAGAAAACCTTGTGAAAATGCAGAC  
AAATTGGCATTATCTTGAGAAATGAACTCATGAAGCTACCTTCTGATGTTGTAAGTGGCCTAAGAGGAA  
AAGGATTATTAATGCTATTGTCTAAAGAAACCAAGATTGGGATGCTTGAAGGTGTGTCTACGACT  
TCGAGATAATGGACTTCTGGCCAAGCCAACCCATGGCGACATTATCAGGTTTGGCCTCCGCTGGTGATC  
AAGGAGGATGAGCTTCGAGAGTCCATTGAAATTATAACAAGACCATCTGTCTTTC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG229852 representing NM\_001171814  
Red=Cloning site Green=Tags(s)

MFSKLAHLQRFVLSRGVHSSVASATSVATKKTVQGPPTSDDIFEREYKYGAHNYHPLPVALERKGIYL  
 WDVEGRKYDFLSSYSVAVNQGHCHPKIVNALKSQVDKLTLSRAFYNVVLGEYEEYITKLFNYHKVLP  
 TMN TGVEAGETACKLARKWGYTVKGIQKYKAKIVFAAGNFWGRTLSAISSTDPSTSYDGFPGFMPGFDIIPYN  
 DLPALERALQDPNVAAFMVEPIQGEAGVVVDPDGYLMGVRELCTRHOVLFIADEIQTGLARTGRWLAVDY  
 ENVRPDI VLLGKALSGGLYPVSAVLCDDDIMLTIKPEHGSTYGGNPLGCRVAIAALEVLEEENLAENAD  
 KLGII LRNELMKLP SDVVTAVRGKGLLNAIVIKETKDWD AWK VCLRLRDNGLLAKPTHGDIIRFAPPLVI  
 KEDELRESIEIINKTILSF

TRTRPLE - GFP Tag - V

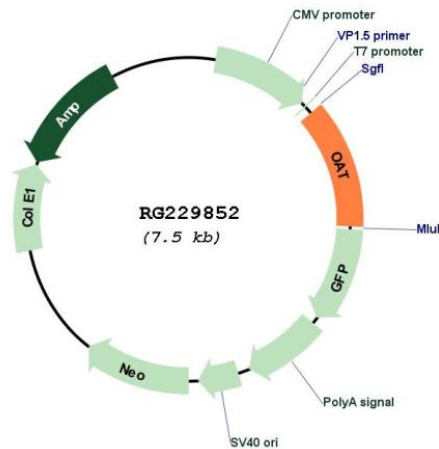
**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:**

NM\_001171814

<b>ORF Size:</b>	1320 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001171814.1</a> , <a href="#">NP_001165285.1</a>
<b>RefSeq Size:</b>	1874 bp
<b>RefSeq ORF:</b>	906 bp
<b>Locus ID:</b>	4942
<b>UniProt ID:</b>	<a href="#">P04181</a>
<b>Cytogenetics:</b>	10q26.13
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Arginine and proline metabolism, Metabolic pathways
<b>Gene Summary:</b>	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]