

## Product datasheet for **RG238149**

### Aminoadipate aminotransferase (AADAT) (NM\_001286683) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Aminoadipate aminotransferase (AADAT) (NM_001286683) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	AADAT
Synonyms:	KAT2; KATII; KYAT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG238149 representing NM_001286683. Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTT TAGTGAACCGTCAGAATTTTGT AATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCC GCGATCGCC
ATGAATTACGCACGGTTCATCACGGCAGCGAGCGCAGCCAGAAACCCCTTCTCCCATCCGGACCATGACT
GACATATTGAGCAGAGGACCAAAATCGATGATCTCCTTGCTGGTGGCTTACCAAATCCAAACATGTTT
CCTTTTAAAGACTGCCGTAATCACTGTAGAAAATGGAAAGACCATCCAATTTGGAGAAGAGATGATGAAG
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AAATTGCATAATCCTCTACCATCCATTACCCACCCAGTCAAGGACAAAATGGATCTATGTGTCACATCT
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CTGATTGAAGAAAAGGCCGTTAAGATGGGGTATTAATGCTCCCTGGAAATGCTTTCTACGTCGATAGC
TCAGCTCTAGCCCTTACTTGAGAGCATCCTTCTCTCAGCTTCTCCAGAACAGATGGATGTGCCCTTC
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```



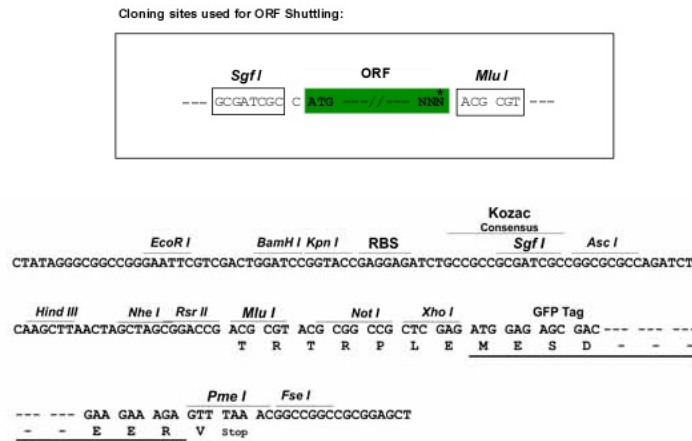
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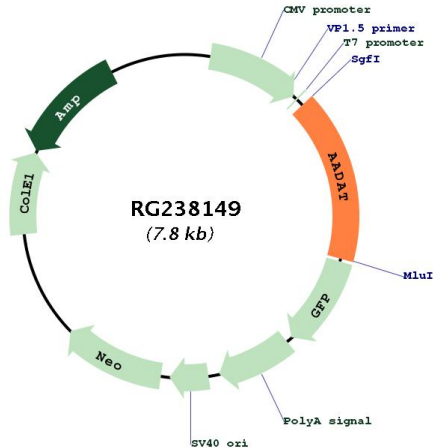
**Protein Sequence:** >Peptide sequence encoded by RG238149  
 Blue=ORF Red=Cloning site Green=Tag(s)

MNYARFITAASAARNPSPIRTMTDILSRGPKSMISLAGGLPNPNMFPFKTAVITVENGKTIQFGEEMMK  
 RALQYSPSAGIPELLSWLKQLQIKLHNPPTIHYPSSQGMDCVTSQSGQGLCKVFEMIINPGDNVLLD  
 EPAYSGTLQSLHPLGCNIINVASDESGIVPDSLRLDILSRWKPEDAKNPQKNTPKFLYTPNGNPTGNS  
 LTSERKKEIYELARKYDFLIIEDDPYYFLQFNKFRVPTFLSMDVDGRVIRADSFSKIISGLRIGFLTG  
 PKPLIERVILHIQVSTLHPSTFNQLMISQLLHEWGEEGFMAHVDRVIDFYSNQKDAILAAADKWLTLA  
 EWHVPAAGMFLWIKVKGINVDKELIEEKAVKMGVLMPLGNAFYVDSSAPSPYLRAFSSASPEQMDVAF  
 QVLAQLIKESL  
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV  
 MGYGFYHFGTYPSTYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED  
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**


**ACCN:** NM\_001286683

**ORF Size:** 1275 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).

**RefSeq:** [NM\\_001286683.1](#), [NP\\_001273612.1](#)

**RefSeq Size:** 2193 bp

**RefSeq ORF:** 1278 bp

**Locus ID:** 51166

**UniProt ID:** [Q8N5Z0](#)

**Cytogenetics:** 4q33

**Protein Pathways:** Lysine biosynthesis, Lysine degradation, Metabolic pathways, Tryptophan metabolism

**MW:** 47.4 kDa

**Gene Summary:**

This gene encodes a protein that is highly similar to mouse and rat kynurenine aminotransferase II. The rat protein is a homodimer with two transaminase activities. One activity is the transamination of alpha-aminoadipic acid, a final step in the saccharopine pathway which is the major pathway for L-lysine catabolism. The other activity involves the transamination of kynurenine to produce kynurenine acid, the precursor of kynurenic acid which has neuroprotective properties. Several transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Nov 2013]