

Product datasheet for **RG223277**

Aminoadipate aminotransferase (AADAT) (NM_016228) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aminoadipate aminotransferase (AADAT) (NM_016228) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Aminoadipate aminotransferase
Synonyms:	KAT2; KATII; KYAT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG223277 representing NM_016228 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAATTACGCACGGTTCATCACGGCAGCGAGCGCAGCCAGAAACCCCTTCTCCATCCGGACCATGACTG
ACATATTGAGCAGAGGACCAAAATCGATGATCTCCTTGGCTGGTGGCTTACCAAATCCAAACATGTTTCC
TTTTAAGACTGCCGTAATCACTGTAGAAAATGGAAAGACCATCCAATTTGGAGAAGAGATGATGAAGAGA
GCACTTCAGTATTCTCCGAGTGTGGAATTCAGAGCTTTTGTCTGGCTAAAACAGTTACAATAAAAT
TGCATAATCCTCCTACCATCCATTACCCACCCAGTCAAGGACAAATGGATCTATGTGTACATCTGGCAG
CCAACAAGGTCTTTGTAAGGTGTTTGAATGATCATTAACTCCTGGAGATAATGTCCTCCTAGATGAACCT
GCTTATTCAGGAACTCTTCAAAGTCTGCACCCACTGGGCTGCAACATTATTAATGTTGCCAGTGATGAAA
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GAAAAACCCCCAAATTTCTTTACTGTTCCAAATGGCAACAACCCCTACTGGAAACTCATTAAACAGT
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ATTTTCTCCAGTTTAAACAAGTTCAGGGTACCAACATTTCTTTCCATGGATGTTGATGGACGTGTCATCAG
AGCTGACTCTTTTCAAAAATCATTTCCTCTGGGTTGAGAATAGGATTTTAACTGGTCCAAAACCCCTTA
ATAGAGAGAGTTATTTTACACATAACAAGTTTCAACATTGCACCCAGCACTTTTAAACAGCTCATGATAT
CACAGCTTCTACACGAATGGGGAGAAGAAGGTTTCATGGCTCATGTAGACAGGGTTATTGATTTCTATAG
TAACCAGAAGGATGCAATACTGGCAGCTGCAGACAAGTGGTTAACTGGTTTGGCAGAATGGCATGTTCTCT
GCTGCTGGAATGTTTTATGGATTAAGTTAAAGGCATTAATGATGTAAGAAGAACTGATTGAAGAAAAGG
CCGTTAAGATGGGGTATTAATGCTCCCTGGAAATGCTTTCTACGTCGATAGCTCAGCTCCTAGCCCTTA
CTTGAGAGCATCCTTCTCTTCAGCTTCTCCAGAACAGATGGATGTGGCCTTCCAGGTATTAGCACAACTT
ATAAAAAGAAATCTTTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG223277 representing NM_016228
 Red=Cloning site Green=Tags(s)

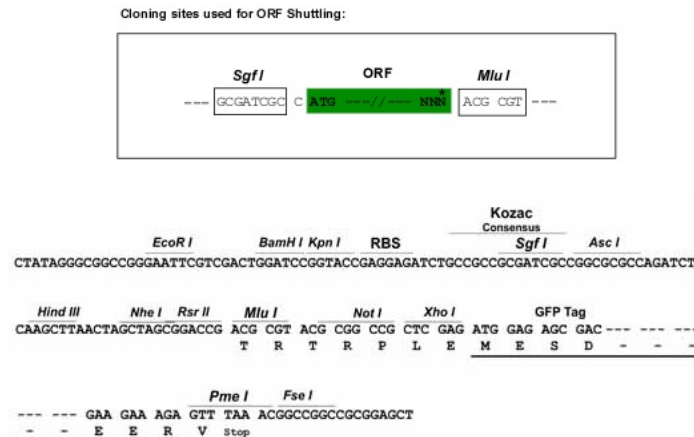
MNYARFITAASAARNPSPIRTMTDILSRGPKSMISLAGGLPNPNMFPFKTAVITVENGKTIQFGEEMMKR
 ALQYSPSAGIPELLSWLKQLQIKLHNPPTIHYPPSQGQMDL CVTSGSQQLCKVFEMIINPGDNVLLDEP
 AYSGLTQSLHPLGCNIINVASDESGIVPDSL RDILSRWKPEDAKNPQKNTPKFLYTVPNGNPTGNSLTS
 ERKKEIYELARKYDFLIIEDDPYYFLQFNKFRVPTFLSMDVDGRVIRADSF SKIISSGLRIGFLTGPKPL
 IERVILHIQVSTLHPSTFNQLMISQLLHEWGEEGFMAHVDRVIDFYSNQKDAILAAADKWL TGLAEWHVP
 AAGMFLWIKVKGINDVKELIEEKAVKMGVLM LPGAIFYVDSSAPSPYL RASFSSASPEQMDVAFQVLAQL
 IKESL

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_016228

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).

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_016228.4](#)

RefSeq Size: 2326 bp

RefSeq ORF: 1278 bp

Locus ID: 51166

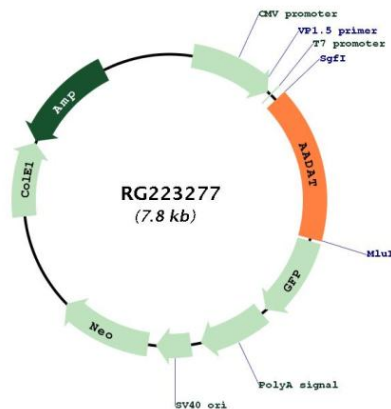
UniProt ID: [Q8N5Z0](#)

Cytogenetics: 4q33

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

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-amino adipic 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]

Product images:



Circular map for RG223277