

## Product datasheet for **RC223277**

### 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:	Myc-DDK
Symbol:	Aminoadipate aminotransferase
Synonyms:	KAT2; KATII; KYAT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC223277 representing NM\_016228  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAATTACGCACGGTTCATCACGGCAGCGAGCGCAGCCAGAAACCCCTTCTCCCATCCGGACCATGACTG  
 ACATATTGAGCAGAGGACCAAAATCGATGATCTCCTTGGCTGGTGGCTTACCAAAATCCAAACATGTTTCC  
 TTTAAGACTGCCGTAATCACTGTAGAAAATGGAAGACCATCCAATTTGGAGAAGAGATGATGAAGAGA  
 GCACCTCAGTATTCTCCGAGTGTGGAATTCCAGAGCTTTTGTCTGGCTAAAACAGTTACAAAATAAAAT  
 TGCATAATCCTCCTACCATCCATTACCCACCCAGTCAAGGACAAAATGGATCTATGTGTCACATCTGGCAG  
 CCAACAAGGTCTTTGTAAGGTGTTTGAATGATCATTAACTCTGGAGATAATGTCCTCCTAGATGAACCT  
 GCTTATTCAGGAAGTCTTCAAAGTCTGCACCCACTGGGCTGCAACATTATTAATGTTGCCAGTGATGAAA  
 GTGGGATTGTTCCAGATCCCTAAGAGACATACTTTCCAGATGGAACCAGAAGATGCAAGAATCCCA  
 GAAAAACACCCCAAATTTCTTTATACTGTTCCAATGGCAACAACCCCTACTGGAACCTCATTAAACAGT  
 GAACGCAAAAAGGAAATCTATGAGCTTGAAGAAAATATGATTTCTCATAATAGAAGATGATCCTTACT  
 ATTTTCTCCAGTTTAAACAGTTCAGGGTACCAACATTTCTTTCCATGGATGTTGATGGACGTGTCATCAG  
 AGCTGACTCTTTTTCAAAAATCATTTCCTCTGGGTTGAGAATAGGATTTTAACTGGTCCAAAACCCTTA  
 ATAGAGAGAGTTATTTTACACATACAAGTTTCAACATTGCACCCAGCAGCTTTTAAACAGCTCATGATAT  
 CACAGCTTCTACACGAATGGGGAGAAGAAGTTTCATGGCTCATGTAGACAGGGTTATTGATTTCTATAG  
 TAACCAGAAGGATGCAATACTGGCAGCTGCAGACAAGTGGTTAACTGGTTTGGCAGAATGGCATGTTCT  
 GCTGCTGGAATGTTTTTATGGATTAAGTTAAAGGCATTAATGATGTAAGAAGTGAAGAAAAGG  
 CCGTTAAGATGGGGTATTAATGCTCCCTGGAAATGCTTTCTACGTCGATAGCTCAGCTCCTAGCCCTTA  
 CTGAGAGCATCCTTCTCTCAGCTTCTCCAGAACAGATGGATGTGGCCTTCCAGGTATTAGCACAACTT  
 ATAAAAGAAATCTTTA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC223277 representing NM\_016228  
 Red=Cloning site Green=Tags(s)

MNYARFITAASAARNPSPIRTMTDILSRGPKSMISLAGGLPNPNMFPFKTAVITVENGKTIQFGEEMMKR  
 ALQYSPSAGIPELLSWLKQLQIKLHNPTTIHYPPSQGQMDL CVTSGSQQLCKVFEMIINPGDNVLLDEP  
 AYSGLQSLHPLGCNIINVASDESGIVPDSL RDILSRWKPEDAKNPQKNTPKFLYTPNGNPTGNSLTS  
 ERKKEIYELARKYDFLI IEDDPYYFLQFNKFRVPTFLSMDVDGRVIRADSF SKIISSGLRIGFLTGPKPL  
 IERVILHIQVSTLHPSTFNQLMISQLLHEWGEEGFMAHVDRVIDFYSNQKDAILAAADKWL TGLAEWHVP  
 AAGMFLWIKVKGINVKELIEEKAVKMGVLM LPGAIFYVDSSAPSPYL RASFSSASPEQMDVAFQVLAQL  
 IKESL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6276\\_b06.zip](https://cdn.origene.com/chromatograms/mk6276_b06.zip)

**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.

**RefSeq:** [NM\\_016228.4](#)

**RefSeq Size:** 2326 bp

**RefSeq ORF:** 1278 bp

**Locus ID:** 51166

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

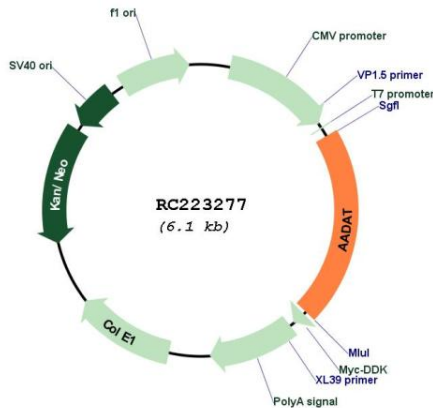
**Cytogenetics:** 4q33

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

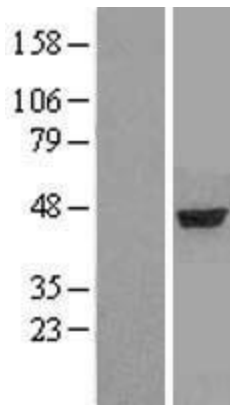
**MW:** 47.2 kDa

**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]

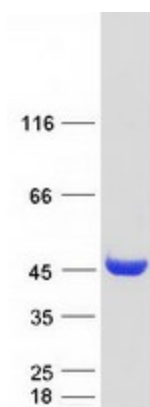
**Product images:**



Circular map for RC223277



Western blot validation of overexpression lysate (Cat# [LY414111]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223277 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified AADAT protein (Cat# [TP323277]). The protein was produced from HEK293T cells transfected with AADAT cDNA clone (Cat# RC223277) using MegaTran 2.0 (Cat# [TT210002]).