OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC313407

Aminoadipate aminotransferase (AADAT) (NM_182662) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aminoadipate aminotransferase (AADAT) (NM_182662) Human Untagged Clone
Tag:	Tag Free
Symbol:	AADAT
Synonyms:	KAT2; KATII; KYAT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

Fully Sequenced ORF:

>SC313407 representing NM_182662.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAATTACGCACGGTTCATCACGGCAGCGAGCGCAGCCAGAAACCCTTCTCCCATCCGGACCATGACT
GACATATTGAGCAGAGGACCAAAATCGATGATCTCCTTGGCTGGTGGCTTACCAAATCCAAACATGTTT
CCTTTTAAGACTGCCGTAATCACTGTAGAAAATGGAAAGACCATCCAATTTGGAGAAGAGATGATGAAG
AGAGCACTTCAGTATTCTCCGAGTGCTGGAATTCCAGAGCTTTTGTCCTGGCTAAAACAGTTACAAATA
AAATTGCATAATCCTCCTACCATCCATTACCCACCCAGTCAAGGACAAATGGATCTATGTGTCACATCT
GGCAGCCAACAAGGTCTTTGTAAGGTGTTTGAAATGATCATTAATCCTGGAGATAATGTCCTCCTAGAT
GAACCTGCTTATTCAGGAACTCTTCAAAGTCTGCACCCACTGGGCTGCAACATTATTAATGTTGCCAGT
GATGAAAGTGGGATTGTTCCAGATTCCCTAAGAGACATACTTTCCAGATGGAAACCAGAAGATGCAAAG
AATCCCCAGAAAAACACCCCCAAATTTCTTTATACTGTTCCAAATGGCAACAACCCTACTGGAAACTCA
TTAACCAGTGAACGCAAAAAGGAAATCTATGAGCTTGCAAGAAAATATGATTTCCTCATAATAGAAGAT
GATCCTTACTATTTTCTCCAGTTTAACAAGTTCAGGGTACCAACATTTCTTTCCATGGATGTTGATGGA
CGTGTCATCAGAGCTGACTCTTTTTCAAAAATCATTTCCTCTGGGTTGAGAATAGGATTTTTAACTGGT
CCAAAACCCTTAATAGAGAGAGTTATTTTACACATACAAGTTTCAACATTGCACCCCAGCACTTTTAAC
CAGCTCATGATATCACAGCTTCTACACGAATGGGGAGAAGAAGGTTTCATGGCTCATGTAGACAGGGTT
ATTGATTTCTATAGTAACCAGAAGGATGCAATACTGGCAGCTGCAGACAAGTGGTTAACTGGTTTGGCA
GAATGGCATGTTCCTGCTGCTGGAATGTTTTTATGGATTAAAGTTAAAGGCATTAATGATGTAAAAGAA
CTGATTGAAGAAAAGGCCGTTAAGATGGGGGTATTAATGCTCCCTGGAAATGCTTTCTACGTCGATAGC
TCAGCTCCTAGCCCTTACTTGAGAGCATCCTTCTCTTCAGCTTCTCCAGAACAGATGGATGTGGCCTTC
CAGGTATTAGCACAACTTATAAAAGAATCTTTATGA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

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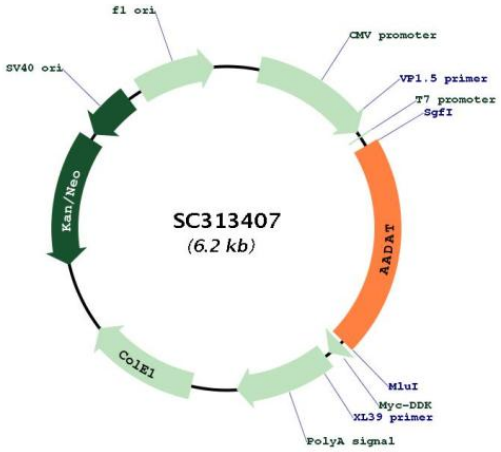
Restriction Sites: SgfI-MluI

Plasmid Map:



ACCN: NM_182662

Insert Size: 1278 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_182662.1

RefSeq Size: 2108 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 saccaropine 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] Transcript Variant: This variant (2) uses an alternate in-frame splice junction at the 3' end of the first coding exon compared to variant 3. The resulting isoform (b) has the same N- and C-termini but is shorter compared to isoform a. Variants 1, 2, and 4 all encode the same isoform (b).