

Product datasheet for SC119757

Adenosine Receptor A2a (ADORA2A) (NM_000675) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Adenosine Receptor A2a (ADORA2A) (NM_000675) Human Untagged Clone
Tag:	Tag Free
Symbol:	Adenosine Receptor A2a
Synonyms:	A2aR; ADORA2; RDC8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC119757 sequence for NM_000675 edited (data generated by NextGen Sequencing)

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ATGCCCATCATGGGCTCCTCGGTGTACATCACGGTGGAGCTGGCCATTGCTGTGCTGGCC
ATCCTGGGCAATGTGCTGGTGTGCTGGGCCGTGTGGCTCAACAGCAACCTGCAGAACGTC
ACCAACTACTTTGTGGTGTCACTGGCGGCGGCCGACATCGCAGTGGGTGTGCTCGCCATC
CCCTTTGCCATCACCATCAGCACCGGGTCTGCGCTGCCTGCCACGGCTGCCTCTTCATT
GCCTGTTCTGCTCCTGGTCTCACGCAGAGCTCCATCTTCAGTCTCCTGGCCATCGCCATT
GACCGCTACATTGCCATCCGCATCCCGCTCCGGTACAATGGCTTGGTGACCGGCACGAGG
GCTAAGGGCATCATTGCCATCTGCTGGGTGCTGTCGTTTGCCATCGGCCCTGACTCCCATG
CTAGGTTGGAACAACTGCGGTGAGCCAAAGGAGGGCAAGAACCACTCCCAGGGCTGCGGG
GAGGGCCAAGTGGCCTGTCTCTTTGAGGATGTGGTCCCCATGAACTACATGGTGTACTTC
AACTTCTTTGCCTGTGTGCTGGTGCCCTGCTGCTCATGCTGGGTGTCTATTTGCGGATC
TTCTGGCGGCGCGACGACAGCTGAAGCAGATGGAGAGCCAGCCTCTGCCGGGGAGCGG
GCACGGTCCACACTGCAGAAGGAGGTCCATGCTGCCAAGTCACTGGCCATCATTGTGGGG
CTCTTTGCCCTCTGCTGGCTGCCCTACACATCATCAACTGCTTCACTTTCTTCTGCCCC
GACTGCAGCCACGCCCTCTCTGGCTCATGTACCTGGCCATCGTCTCTCCACACCAAT
TCGGTTGTGAATCCCTTCATCTACGCCTACCGTATCCGCGAGTTCGCCAGACCTTCCG
AAGATCATTGCGAGCCACGTCTGAGGCAGCAAGAACCTTTCAAGGCAGCTGGCACCAGT
GCCCGGGTCTTGGCAGCTCATGGCAGTGACGGAGAGCAGGTGAGCCTCCGTCTCAACGGC
CACCCGCGAGGAGTGTGGGCAACGGCAGTGTCTCCACACCTGAGCGGAGGCCCAATGGC
TACGCCCTGGGGTGGTGTGAGTGGAGGGAGTGCCCAAGAGTCCCAGGGGAACACGGGCCTC
CCAGAGCTGGAGCTCCTTAGCCATGAGCTCAAGGGAGTGTGCCAGAGCCCCCTGGCCTA
GATGACCCCTGGCCAGGATGGAGCAGGAGTGTCTCTGA

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Clone variation with respect to NM_000675.4
1083 t=>c



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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000675 unedited
 TTCACATATTTGTATACGACTACTATAGGCGGCCGATTTCGGCACGAGGCGGAGACCC
 AGCGGCCCGGAGACAGCGGGAGCCGGCGTGCAGCGGCAGGTGCCTCAGGAACCCTGAA
 GCTGGGCTGAGCCATGATGCTGCTGCCAGAACCCTGCAGAGGGCTGGTTTCAGGAGAC
 TCAGAGTCTCTGTGAAAAAGCCCTTGGAGAGCGCCCCAGCAGGGCTGCACCTGGCTCCT
 GTGAGGAAGGGGCTCAGGGGTCTGGGCCCTCCGCCTGGGCCGGGCTGGGAGCCAGGCGG
 GCGGCTGGGCTGCAGCAATGGACCGTGAGCTGGCCAGCCCGCGTCCGTGCTGAGCCTGC
 CTGTCTGTGGCCATGCCATCATGGGCTCCTCGGTGTACATCACGGTGGAGCTGGCC
 ATTGCTGTGCTGGCCATCCTGGCAATGTGCTGGTGTGCTGGGCCGTGTGGCTCAACAGC
 AACCTGCAGAACGTCACCAACTACTTTTGGTGTCACTGGCGGGCCGACATCGCAGTG
 GGTGTGCTCGCCATCCCCTTTGCCATCACCATCAGCACCGGGTTCTGCGCTGCCTGCCAC
 GGCTGCCTCTTATTGCCTGCTTCGCTGCTCCTCACGCAGAGCTCCATCTTCAGTCTC
 CTGGCCATCGCCATTGACCGCTACATTGCCATCCGCATCCCGCTCCGGTACAATGGCTTG
 GTGACCGGCACGAGGGCTAAGGGCATATTGCCATCTGCTGGGTGCTGTGTTTGCATC
 GGCTGACTCCCATGCTAGGTTGGAACAACTGCGGTGAGCCCAAGGGAGGCAAGAACCAC
 TCCCAGGNGTGCNGAGGGCCAGTGGCTGTCTTTGAGATGNGGTCCCCTGACTA
 CATGGNGNACTNNNACTCTTGNGTGTGTGCTGGTGGCCCTGCTGCTCATGCTGGTGTCT
 ATTTGCCGT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000675 unedited
 TTGTGGGCTCGTCTTTTTTTTATNCTCANAAAAAACATTCCCTTANAAGGAAAGCAGT
 TAGACAAGGCCTCTCACTGGGTAGCTCTGCGCTACTCAGCACATGCCAGTGGCCTGCCAG
 CCCAACCTCTCCCTGGGACCTGGGCCATGCTCTGGCACTGCTCTGTTACAACCTCCCT
 GTCCTTGATCCCAGCTTTGTCACTCCAAGAGATGGCCCTGGGACTGAGAAGTGGATGGCA
 GCTGTGACAGCAGGAGAGGACTGCCTGAGGCTCCCCGGGCAGAGGCTCTGGTGCCAGGTT
 AGCAGCAGGACCGACGGCAGACCCAGCAGCAGAGAGTAAAGGTAATAAAATAAAAAGG
 GTTTCCTCACACTTACATTTTTTCTGGAAAAAAGTCAAATGTCACCTCTGGGCCAGCA
 GCTCCTGAACCTAGGAGAGTCTAGGGAGAGTGGTGTGTGGGTGGCAGGAGGCTGTTGGA
 GCCACTCCCAGTCTTAGGGCAGGCCAGTCTGCTGTGCCAAGCTGCTCTGTGGAGACA
 AGGCGGTGCTTCCAGATGCTTCTGCAATGGAAGGCTGGGCCCTGCCACTAAAGATGCTG
 CTGGTGTGGGGCCCCACCTGGAGCAGGCCTCACACGATGAAACATCTGCTTCCCTCAA
 ACCAAGCCCTTCTTGTGGCCCTCATCTGTTCTCACCTGGGGCATAACCTTCCCTCATC
 CAAAGCAAGAACCCGCTGCGCCTCCGGCTCCTGNGCCCTTTTTCTGCCATACGGCGGT
 GGGGACAGCTAATCCGCAAGATAAAGTACCTCCTTCGTTTCGTACGGGCACCATCGCCC
 GGTACTCCCTCGTCACTCTCCGCCATTCTTAGCGCGTGGCTCTTNNCATGCCAGGC
 GTGCTGGACAGCTTCGCCCAGCTCATCACGTGCTTACGCGCTCCGCTGTNTTGGCGAGC
 GCGATCCCCTCACACCCTATCCTTAGTATCTCGCGTGTCTGTCTCCGACNNTTAG

Restriction Sites:

ECoRI-NOT

ACCN:

NM_000675

Insert Size:

2500 bp

OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<ol style="list-style-type: none"> 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_000675.3 , NP_000666.2
RefSeq Size:	2403 bp
RefSeq ORF:	1239 bp
Locus ID:	135
UniProt ID:	P29274
Cytogenetics:	22q11.23
Domains:	7tm_1
Protein Families:	Druggable Genome, GPCR, Transmembrane
Protein Pathways:	Calcium signaling pathway, Neuroactive ligand-receptor interaction, Vascular smooth muscle contraction

Gene Summary:

This gene encodes a member of the guanine nucleotide-binding protein (G protein)-coupled receptor (GPCR) superfamily, which is subdivided into classes and subtypes. The receptors are seven-pass transmembrane proteins that respond to extracellular cues and activate intracellular signal transduction pathways. This protein, an adenosine receptor of A2A subtype, uses adenosine as the preferred endogenous agonist and preferentially interacts with the G(s) and G(olf) family of G proteins to increase intracellular cAMP levels. It plays an important role in many biological functions, such as cardiac rhythm and circulation, cerebral and renal blood flow, immune function, pain regulation, and sleep. It has been implicated in pathophysiological conditions such as inflammatory diseases and neurodegenerative disorders. Alternative splicing results in multiple transcript variants. A read-through transcript composed of the upstream SPECC1L (sperm antigen with calponin homology and coiled-coil domains 1-like) and ADORA2A (adenosine A2a receptor) gene sequence has been identified, but it is thought to be non-coding. [provided by RefSeq, Jun 2013]

Transcript Variant: This variant (3) differs in the 5' UTR compared to variant 1. Variants, 1, 2, 3, 4, and 5 encode the same protein.