

Product datasheet for **SC335957**

Adenosine Receptor A2a (ADORA2A) (NM_001278497) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Adenosine Receptor A2a (ADORA2A) (NM_001278497) Human Untagged Clone
Tag:	Tag Free
Symbol:	Adenosine Receptor A2a
Synonyms:	A2aR; ADORA2; RDC8
Mammalian Cell Selection:	Neomycin
Vector:	<u>PCMV6-Neo</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001278497, the custom clone sequence may differ by one or more nucleotides

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ATGCCATCATGGGCTCCTCGGTGTACATCACGGTGGAGCTGGCCATTGCTGTGCTGGCCATCCTGGGCA
ATGTGCTGGTGTGCTGGGCCGTGTGGTCAACAGCAACCTGCAGAACGTACCAACTACTTTGTGGTGTG
ACTGGCGCGGCCGACATCGCAGTGGGTGTGCTCGCCATCCCCTTTGCCATCACCATCAGCACGGGTTT
TGCGCTGCCTGCCACGGCTGCCTCTTCATTGCCTGCTTCGTCTGGTCTCACGCAGAGCTCCATCTTCA
GTCTCCTGGCCATCGCCATTGACCGCTACATTGCCATCCGCATCCCGCTCCGGTACAATGGCTTGGTGAC
CGGCACGAGGGCTAAGGGCATCATTGCCATCTGCTGGGTGCTGCTTTGCCATCGGCTGACTCCCATG
CTAGGTTGGAACAACTGCGGTGAGCCAAAGGAGGGCAAGAACCCTCCCAGGGCTGCGGGGAGGGCCAAG
TGGCCTGTCTCTTTGAGGATGTGGTCCCATGAACTACATGGTGTACTTCAACTTCTTTGCCTGTGTGCT
GGTGCCCTGCTGCTCATGCTGGGTGTCTATTTGCGGATCTTCTGGCGGCGCAGCAGACTGAAGCAG
ATGGAGAGCCAGCCTCTGCCGGGGGAGCGGGCACGGTCCACACTGCAGAAGGAGGTCCATGCTGCCAAGT
CACTGGCCATCATTGTGGGGCTCTTTGCCCTGCTGGCTGCCCTACACATCATCAACTGCTTCACTTT
CTTCTGCCCGACTGCAGCCACGCCCTCTGCGTCAATGACCTGGCCATCGTCTCTCCACACCAAT
TCGGTTGTAATCCCTTCATCTACGCTACCGTATCCGCGAGTTCGCCAGACCTCCGCAAGATCATT
GCAGCCACGTCTGAGGCAGCAAGAACCTTTCAAGGCAGCTGGCACCAGTGCCCGGGTCTTGGCAGCTCA
TGGCAGTGACGGAGAGCAGGTGAGCTCCGTCTCAACGGCCACCCGAGGAGTGGGCAACGGCAGT
GCTCCCCACCCTGAGCGGAGGCCAATGGCTATGCCCTGGGGTGGTGGTGGAGGGAGTGCCCAAGAGT
CCCAGGGGAACACGGGCCTCCAGACGTGGAGCTCCTTAGCCATGAGCTCAAGGGAGTGTGCCAGAGCC
CCCTGGCCTAGATGACCCCTGGCCAGGATGGAGCAGGAGTGTCTGA

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Restriction Sites:	SgfI-MluI
ACCN:	NM_001278497



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OTI Disclaimer: 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.

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](#)

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_001278497.1](#), [NP_001265426.1](#)

RefSeq Size: 2754 bp

RefSeq ORF: 1239 bp

Locus ID: 135

UniProt ID: [P29274](#)

Cytogenetics: 22q11.23

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 (1) represents the longest transcript. Variants, 1, 2, 3, 4, and 5 encode the same protein.