

Product datasheet for RC238065

Adenosine Receptor A2a (ADORA2A) (NM_001278499) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Adenosine Receptor A2a (ADORA2A) (NM_001278499) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Adenosine Receptor A2a
Synonyms:	A2aR; ADORA2; RDC8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC238065 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCCATCATGGGCTCCTCGGTGTACATCACGGTGGAGCTGGCCATTGCTGTGCTGGCCATCCTGGGCA
ATGTGCTGGTGTGCTGGGCCGTGTGGCTCAACAGCAACCTGCAGAACGTCACTACTTTGTGGTGTC
ACTGGCGCGGCCGACATCGCAGTGGGTGTGCTCGCCATCCCCTTGGCCATCACCATCAGCACCGGGTTC
TGGCTGCTGCCACGGCTGCCTCTTCATTGCCTGCTTCGTCTCGTGGTCTCACGCAGAGCTCCATCTTCA
GTCTCCTGGCCATCGCCATTGACCGCTACATTGCCATCCGCATCCCGCTCCGGTACAATGGCTTGGTGAC
CGGCACGAGGGCTAAGGGCATCATTGCCATCTGCTGGGTGCTGCTGTTGCCATCGGCCTGACTCCCATG
CTAGGTTGGAACAACCTGCGGTACGCCAAAGGAGGGCAAGAACCACTCCCAGGGCTGCGGGGAGGGCCAAG
TGGCCTGTCTCTTTGAGGATGTGGTCCCATGAACTACATGGTGTACTTCAACTTCTTTGCCTGTGTGCT
GGTGGCCCTGCTGCTCATGCTGGGTGTCTATTTGCGGATCTTCTGGCGGCGCGACGACGCTGAAGCAG
ATGGAGAGCCAGCCTCTGCCGGGGAGCGGGCACGGTCCACACTGCAGAAGGAGGTCCATGCTGCCAAGT
CACTGGCCATCATTGTGGGGCTCTTTGCCCTCTGCTGGCTGCCCTACACATCATCAACTGCTTCACTTT
CTTCTGCCCGACTGCAGCCACGCCCTCTCTGGCTCATGTACCTGGCCATCGTCTCTCCACACCAAT
TCGGTTGTGAATCCCTTCTACGCTACCGTATCCCGGAGTTCGCCAGACCTCCGCAAGATCATT
GCAGCCAGTCTGAGGCAGCAAGAACCTTTCAAGGCAGCTGGCACCAGTGCCCGGGTCTTGGCAGCTCA
TGGCAGTGACGGAGAGCAGGTACGCTCCTCAACGGCCACCCGCCAGGAGTGTGGGCAACGGCAGT
GCTCCCCACCCTGAGCGGAGGCCAATGGCTACGCCCTGGGGCTGGTGGTGGAGGGAGTGCCAAGAGT
CCCAGGGGAACACGGGCCTCCCAGAGCTGGAGCTCCTTAGCCATGAGCTCAAGGGAGTGTGCCAGAGCC
CCCTGGCTAGATGACCCCTGGCCAGGATGGAGCAGGAGTGTCC

ACGGCTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC238065 protein sequence
Red=Cloning site Green=Tags(s)

MPIMGSSVYITVELAIAVLAILGNVLCWAVWLNLSNLQNVNTNYFVVSLAAADIAGVLAIPFAITISTGF
 CAACHGCLFIACFVLVLTQSSIFSLLAIAIDRYIAIRIPLRYNGLVTGTRAKGIIAICWVLSFAIGLTPM
 LGWNNCGQPKEGKNHSQCGEGQVACLFEDEVPMNYMVYFNFFACVLPVLLLMLGVYLRIFLAARRQLKQ
 MESQPLPGERARSTLQKEVHAAKSLAIIIVGLFALCWLP LHIINCF TFFCPDCSHAPLWMLYLAIVLSHTN
 SVVNPFIYAYRIREFRQTFRKIIIRSHVLRQQEPFKAAGTSARVLAAHGSDGEQVSLRLNGHPPGVWANGS
 APHPERRPNGYALGLVSGGSAQESQNTGLPDVELLSHELKGVCPPEPGLDDPLAQDGAGVS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6138_a07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_001278499

ORF Size: 1236 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_001278499.1](#), [NP_001265428.1](#)

RefSeq Size: 2563 bp

RefSeq ORF: 1239 bp

Locus ID: 135

UniProt ID: [P29274](#)

Cytogenetics: 22q11.23

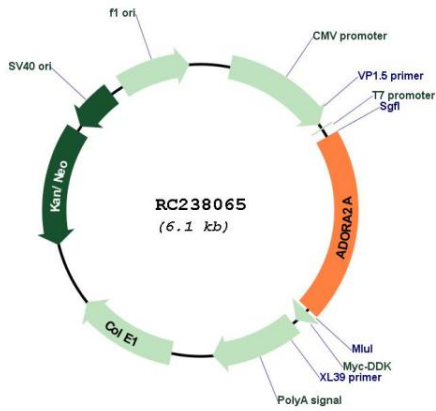
Protein Families: Druggable Genome, GPCR, Transmembrane

Protein Pathways: Calcium signaling pathway, Neuroactive ligand-receptor interaction, Vascular smooth muscle contraction

MW: 44.7 kDa

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]

Product images:



Circular map for RC238065