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 RC208366

alpha 2a Adrenergic Receptor (ADRA2A) (NM_000681) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha 2a Adrenergic Receptor (ADRA2A) (NM_000681) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	alpha 2a Adrenergic Receptor
Synonyms:	ADRA2; ADRA2R; ADRAR; ALPHA2AAR; ZNF32
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC208366 representing NM_000681
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCTCCCTGCAGCCGGACGCGGGCAACGCGAGCTGGAACGGGACCGAGGCGCCGGGGGGCGGCGCCC
GGGCCACCCCTTACTCCCTGCAGGTGACGCTGACGCTGGTGTGCCTGGCCGGCCTGCTCATGCTGCTCAC
CGTGTTCGGCAACGTGCTCGTCATCATCGCCGTGTTCACGAGCCGCGCGCTCAAGGCGCCCCAAAACCTC
TTCCTGGTGTCTCTGGCCTCGGCCGACATCCTGGTGGCCACGCTCGTCATCCCTTTCTCGCTGGCCAACG
AGGTCATGGGCTACTGGTACTTCGGCAAGGCTTGGTGCGAGATCTACCTGGCGCTCGACGTGCTCTTCTG
CACGTCGTCCATCGTGCACCTGTGCGCCATCAGCCTGGACCGCTACTGGTCCATCACACAGGCCATCGAG
TACAACCTGAAGCGCACGCCGCGCCGCATCAAGGCCATCATCATCACCGTGTGGGTCATCTCGGCCGTCA
TCTCCTTCCCGCCGCTCATCTCCATCGAGAAGAAGGGCGGCGGCGGCGGCCCGCAGCCGGCCGAGCCGCG
CTGCGAGATCAACGACCAGAAGTGGTACGTCATCTCGTCGTGCATCGGCTCCTTCTTCGCTCCCTGCCTC
ATCATGATCCTGGTCTACGTGCGCATCTACCAGATCGCCAAGCGTCGCACCCGCGTGCCACCCAGCCGCC
GGGGTCCGGACGCCGTCGCCGCGCCGCCGGGGGGCACCGAGCGCAGGCCCAACGGTCTGGGCCCCGAGCG
CAGCGCGGGCCCGGGGGGCGCAGAGGCCGAACCGCTGCCCACCCAGCTCAACGGCGCCCCTGGCGAGCCC
GCGCCGGCCGGGCCGCGCGACACCGACGCGCTGGACCTGGAGGAGAGCTCGTCTTCCGACCACGCCGAGC
GGCCTCCAGGGCCCCGCAGACCCGAGCGCGGTCCCCGGGGCAAAGGCAAGGCCCGAGCGAGCCAGGTGAA
GCCGGGCGACAGCCTGCCGCGGCGCGGGCCGGGGGCGACGGGGATCGGGACGCCGGCTGCAGGGCCGGGG
GAGGAGCGCGTCGGGGCTGCCAAGGCGTCGCGCTGGCGCGGGCGGCAGAACCGCGAGAAGCGCTTCACGT
TCGTGCTGGCCGTGGTCATCGGAGTGTTCGTGGTGTGCTGGTTCCCCTTCTTCTTCACCTACACGCTCAC
GGCCGTCGGGTGCTCCGTGCCACGCACGCTCTTCAAATTCTTCTTCTGGTTCGGCTACTGCAACAGCTCG
TTGAACCCGGTCATCTACACCATCTTCAACCACGATTTCCGCCGCGCCTTCAAGAAGATCCTCTGTCGGG
GGGACAGGAAGCGGATCGTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC208366 representing NM_000681
Red=Cloning site Green=Tags(s)

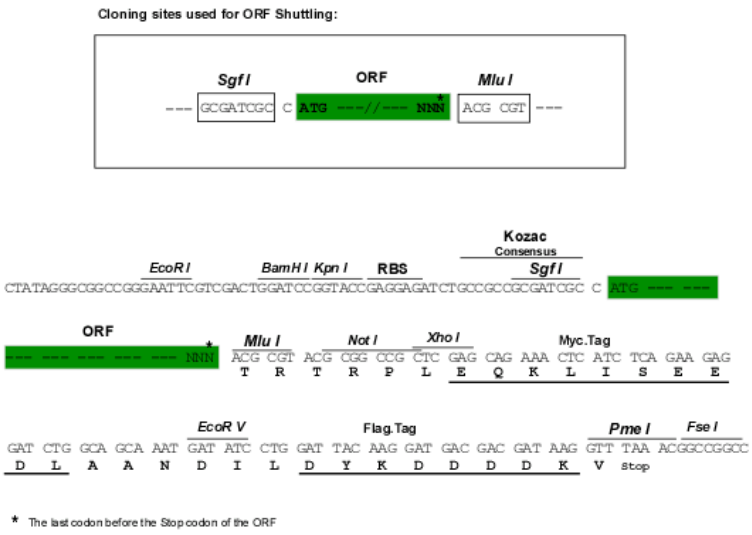
MGSLQPDAGNASWNGTEAPGGGARATPYSLQVTLTLVCLAGLLMLLTVFGNVLVIIAVFTSRALKAPQNL
FLVSLASADILVATLVIPFSLANEVMGYWYFGKAWCEIYLALDVLFCTSSIVHLCAISLDRYWSITQAIE
YNLKRTPRRIKAIIITVWVISAVISFPPLISIEKKGGGGGPQPAEPRCEINDQKWYVISSCIGSFFAPCL
IMILVYVRIYQIAKRRTRVPPSRRGPDAVAAPPGGTERRPNGLGPERSAGPGGAEAEPLPTQLNGAPGEP
APAGPRDTDALDLEESSSSDHAERPPGPRRPERGPRGKGKARASQVKPGDSLPRRGPGATGIGTPAAGPG
EERVGAAKASRWRGRQNREKRFTFVLAVVIGVFVVCWFPFFFTYTLTAVGCSVPRTLFKFFFWFGYCNSS
LNPVIYTIFNHDFRRAFKKILCRGDRKRIV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2842_d01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000681

ORF Size: 1350 bp

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

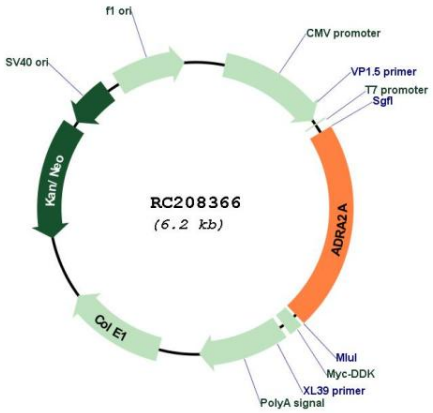
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

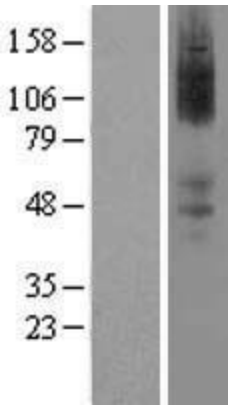
Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid 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_000681.2, NP_000672.2
RefSeq Size:	3653 bp
RefSeq ORF:	1398 bp
Locus ID:	150
UniProt ID:	P08913
Cytogenetics:	10q25.2
Domains:	7tm_1
Protein Families:	Druggable Genome, GPCR, Transmembrane
Protein Pathways:	Neuroactive ligand-receptor interaction
MW:	48.8 kDa
Gene Summary:	Alpha-2-adrenergic receptors are members of the G protein-coupled receptor superfamily. The alpha-2-adrenergic receptors are a type of adrenergic receptors (for adrenaline or epinephrine), which inhibit adenylate cyclase. These receptors include 3 highly homologous subtypes: alpha2A, alpha2B, and alpha2C. They are involved in regulating the release of neurotransmitter molecules from sympathetic nerves and from adrenergic neurons in the central nervous system. The sympathetic nervous system regulates cardiovascular function by activating adrenergic receptors in the heart, blood vessels and kidney. Studies in mouse revealed that both the alpha2A and alpha2C receptor subtypes were required for presynaptic transmitter release from the sympathetic nervous system in the heart and from central noradrenergic neurons. The alpha-2-adrenergic receptors are also involved in catecholamine signaling by extracellular regulated protein kinase 1 and 2 (ERK1/2) pathways. A clear association between the alpha-2-adrenergic receptor and disease has not been yet established. [provided by RefSeq, Sep 2019]

Product images:



Circular map for RC208366



Western blot validation of overexpression lysate (Cat# [LY424572]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208366 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).