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 RC209169

PDE8A (NM_002605) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDE8A (NM_002605) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDE8A
Synonyms:	HsT19550
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC209169 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCTGTGCCCCGAGCATCCACATTTCCGAGCGCCTGGTGGCCGAGGACGCGCCTAGCCCCGCGGCAC
CGCCGCTGTCGTCCGGCGGGCCGCGCCTCCCGCAGGGCCAGAAGACGGCCGCCTTGCCCCGGACCCGCGG
CGCCGGCCTCTTGGAGTCGGAGCTTCGCGACGGCAGCGGCAAGAAGGTAGCAGTAGCTGATGTGCAGTTT
GGCCCCATGAGATTTCATCAAGATCAACTTCAGGTACTTTTAGTGTTTACCAAAGAAGATAACCAATGTA
ATGGATTCTGCAGGGCATGTGAAAAAGCAGGGTTTAAGTGTACAGTTACCAAGGGGGCTCAGGCTGTCCT
TGCCTGTTTCCTGGACAAACATCATGACATTATCATCATAGACCACAGAAATCCTCGACAGCTGGATGCA
GAGGCACTGTGCAGGTCTATCAGATCATCAAAACTCTCAGAAAACACAGTTATTGTTGGTGTAGTACGCA
GGGTGGATAGAGAAGAGTTGTCCGTAATGCCTTTCATTTCTGCTGGATTTACAAGGAGGTATGTAGAAAA
CCCCAACATCATGGCCTGCTACAATGAACTGCTCCAGCTGGAGTTTGGAGAGGTGCGATCACAACTGAAA
CTCAGGGCTTGTAACTCAGTATTCACTGCATTAGAAAACAGTGAAGATGCAATTGAAATTACAAGCGAAG
ACCGTTTTATACAGTATGCAAATCCTGCATTTGAAACAACAATGGGCTATCAGTCAGGTGAATTAATAGG
GAAGGAGTTAGGAGAAGTGCCTATAAATGAAAAAAAGGCTGACTTGCTCGATACTATAAATTCATGCATC
AGGATAGGCAAGGAGTGGCAAGGAATTTACTATGCCAAAAAGAAAAACGGAGATAATATACAACAAAATG
TGAAGATAATACCTGTCATTGGACAGGGAGGAAAAATTAGACACTATGTGTCCATTATCAGAGTGTGCAA
TGGCAACAATAAGGCTGAGAAAATATCCGAATGTGTTCAGTCTGACACTCATACAGATAATCAGACAGGC
AAACATAAAGACAGGAGAAAAGGCTCACTAGACGTCAAAGCTGTTGCCTCCCGTGCAACTGAAGTTTCCA
GCCAGAGACGACACTCTTCCATGGCCCGGATACATTCCATGACAATTGAGGCGCCCATCACCAAGGTAAT
CAATATTATCAATGCTGCCCAGGAAAGTAGTCCCATGCCTGTGACAGAAGCCCTAGACCGTGTGCTGGAA
ATTCTAAGAACCACTGAGTTATATTCACCACAGTTTGGTGCTAAAGATGATGATCCCCATGCCAATGACC
TTGTTGGGGGCTTAATGTCTGATGGTTTGCGAAGACTATCAGGGAATGAATATGTTCTTTCAACAAAAAA
CACTCAAATGGTTTCAAGCAATATAATCACTCCCATCTCCCTTGATGATGTCCCACCACGGATAGCTCGG
GCCATGGAAAATGAGGAATACTGGGACTTTGATATTTTTGAACTGGAGGCTGCCACCCACAATAGGCCTT
TGATTTATCTTGGTCTCAAAATGTTTGCTCGCTTTGGAATCTGTGAATTCTTACACTGCTCCGAGTCAAC
GCTAAGATCATGGTTACAAATTATCGAAGCCAATTATCATTCCTCCAATCCCTACCACAATTCTACACAT
TCTGCTGATGTGCTTCATGCCACTGCCTATTTTCTCTCCAAGGAGAGGATAAAGGAAACTTTAGATCCAA
TTGATGAGGTCGCTGCACTCATCGCAGCCACCATTCATGATGTGGATCACCCTGGGAGAACCAACTCCTT
CCTGTGTAATGCTGGAAGTGAGCTGGCCATTTTGTACAATGACACTGCTGTGCTGGAGAGCCACCATGCG
GCCTTGGCCTTCCAGCTGACCACTGGAGATGATAAATGCAATATATTTAAAAACATGGAGAGGAATGATT
ATCGGACACTGCGCCAGGGGATTATCGACATGGTCTTAGCCACAGAAATGACAAAGCACTTTGAGCATGT
CAACAAATTTGTCAACAGCATCAACAAACCCTTGGCAACACTAGAAGAAAATGGGGAAACTGATAAAAAC
CAGGAAGTGATAAACACTATGCTTAGGACTCCAGAGAACCGGACCCTAATCAAACGAATGCTGATTAAAT
GTGCTGATGTGTCCAATCCCTGCCGACCCCTGCAGTACTGCATCGAGTGGGCTGCACGCATTTCGGAAGA
ATATTTTTCTCAGACTGATGAAGAGAAGCAGCAGGGCTTACCTGTGGTGATGCCAGTGTTTGACAGAAAT
ACCTGCAGCATCCCCAAATCCCAAATCTCTTTCATTGATTACTTCATCACAGACATGTTTGATGCTTGGG
ATGCCTTTGTAGACCTGCCTGATTTAATGCAGCATCTTGACAACAACTTTAAATACTGGAAAGGACTGGA
CGAAATGAAGCTGCGGAACCTCCGACCACCTCCTGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC209169 protein sequence
Red=Cloning site Green=Tags(s)

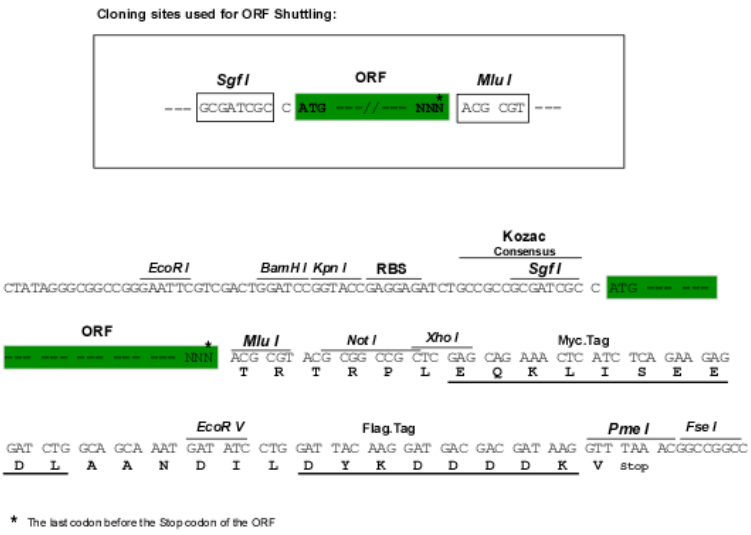
MGCAPSIHISERLVAEDAPSPAAPPLSSGGPRLPQGQKTAALPRTRGAGLLESELRDGSGKKVAVADVQF
GPMRFHQDQLQVLLVFTKEDNQCNGFCRACEKAGFKCTVTKGAQAVLACFLDKHHDIIIIDHRNPRQLDA
EALCRSIRSSKLSENTVIVGVVRRVDREELSVMPFISAGFTRRYVENPNIMACYNELLQLEFGEVRSQLK
LRACNSVFTALENSEDAIEITSEDRFIQYANPAFETTMGYQSGELIGKELGEVPINEKKADLLDTINSCI
RIGKEWQGIYYAKKKNGDNIQQNVKIIPVIGQGGKIRHYVSIIRVCNGNNKAEKISECVQSDTHTDNQTG
KHKDRRKGSLDVKAVASRATEVSSQRRHSSMARIHSMTIEAPITKVINIINAAQESSPMPVTEALDRVLE
ILRTTELYSPQFGAKDDDPHANDLVGGLMSDGLRRLSGNEYVLSTKNTQMVSSNIITPISLDDVPPRIAR
AMENEEYWDFDIFELEAATHNRPLIYLGLKMFARFGICEFLHCSESTLRSWLQIIEANYHSSNPYHNSTH
SADVLHATAYFLSKERIKETLDPIDEVAALIAATIHDVDHPGRTNSFLCNAGSELAILYNDTAVLESHHA
ALAFQLTTGDDKCNIFKNMERNDYRTLRQGIIDMVLATEMTKHFEHVNKFVNSINKPLATLEENGETDKN
QEVINTMLRTPENRTLIKRMLIKCADVSNPCRPLQYCIEWAARISEEYFSQTDEEKQQGLPVVMPVFDRN
TCSIPKSQISFIDYFITDMFDAWDAFVDLPDLMQHLDNNFKYWKGLDEMKLRNLRPPPE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6272_f03.zip

Restriction Sites: SgfI-MluI

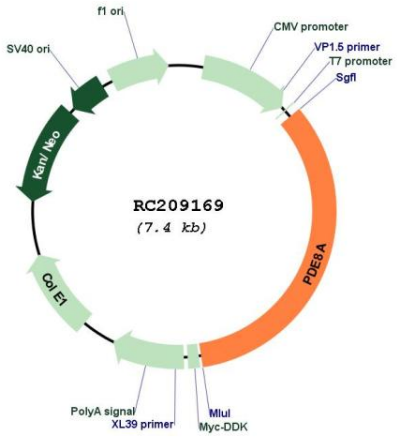
Cloning Scheme:



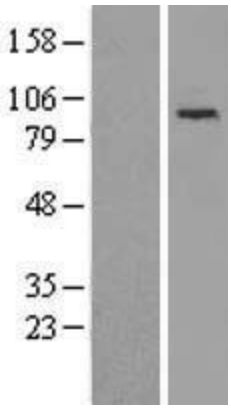
ACCN:	NM_002605
ORF Size:	2487 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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_002605.3
RefSeq Size:	3931 bp
RefSeq ORF:	2490 bp
Locus ID:	5151
UniProt ID:	O60658
Cytogenetics:	15q25.3
Domains:	PDEase
Protein Families:	Druggable Genome
Protein Pathways:	Progesterone-mediated oocyte maturation, Purine metabolism
MW:	93.2 kDa
Gene Summary:	The protein encoded by this gene belongs to the cyclic nucleotide phosphodiesterase (PDE) family, and PDE8 subfamily. This PDE hydrolyzes the second messenger, cAMP, which is a regulator and mediator of a number of cellular responses to extracellular signals. Thus, by regulating the cellular concentration of cAMP, this protein plays a key role in many important physiological processes. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Jul 2011]

Product images:



Circular map for RC209169



Western blot validation of overexpression lysate (Cat# [LY419223]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209169 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).