

Product datasheet for **RC214749**

PDE7A (NM_002603) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PDE7A (NM_002603) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PDE7A
Synonyms:	HCP1; PDE7
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC214749 representing NM_002603
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGAATTACATTGATCTGGTGTCTGGCCTTGGTTCTTATCAAGTGGATCACCTCTAAGAGGCGTGGAG
 CTATTTCTATGACAGTTCTGATCAGACTGCATTATACATTTCGTATGCTAGGAGATGTACGTGTAAGGAG
 CCGAGCAGGATTTGAATCAGAAAAGAGGTTCTCACCCATATATTGATTTTCGATTTTCCACTCTCAA
 TCTGAAATTGAAGTGTCTGTCTCTGCAAGGAATATCAGAAGGCTACTAAGTTCCAGCGATATCTTAGAT
 CTTACGCTTTTTTCGTGGTACTGCGGTTTCAAATCCCTAAACATTTTAGATGATGATTATAATGGACA
 AGCCAAGTGTATGCTGGAAAAAGTTGAAATTGGAATTTTGATATCTTTCTATTTGATAGACTAACAAAT
 GGAATAGTCTAGTAAGCTAACCTTTCAATTTATTTAGTCTTCATGGATTAATTGAGTACTTCCATTTAG
 ATATGATGAACTTCGTAGATTTTATGTTATGATTCAAGAAGATTACCACAGTCAAAATCCTTACCATAA
 CGCAGTCCAGCTGCGGATGTTACTCAGGCCATGCACTGTTACTTAAAGGAACCTAAGCTTGCCAATTCT
 GTAACCTTTGGGATATCTTGTGAGCTTAATTGCAGCTGCCACTCATGATCTGGATCATCCAGGTGTTA
 ATCAACCTTTCTTATTAATAAATAACCATTACTTGGCACTTTATACAAGAATACCTCAGTACTGGAAAA
 TCACCACTGGAGATCTGCAGTGGGCTTATTGAGAGAATCAGGCTTATTCTCACATCTGCCATTAGAAAGC
 AGGCAACAAATGGAGACACAGATAGGTGCTCTGATACTAGCCACAGACATCAGTCGCCAGAATGAGTATC
 TGTCTTTGTTTAGGTCCCATTGGATAGAGGTGATTTATGCCTAGAAGACACCAGACACAGACATTTGGT
 TTTACAGATGGCTTTGAAATGTCTGATTTTGTAAACCATGTCGGACGTGGGAATTAAGCAAGCAGTGG
 AGTGAAAAAGTAACGGAGGAATCTTCCATCAAGGAGATATAGAAAAAATATCATTGGGTGTGAGTC
 CACTTTGCGATCGTCACACTGAATCTATTGCCAACATCCAGATTGGTTTTATGACTTACCTAGTGGAGCC
 TTTATTTACAGAATGGGCCAGGTTTTCCAATAACAAGGCTATCCCAGACAATGCTTGGACACGTGGGGCTG
 AATAAAGCCAGCTGGAAGGGACTGCAGAGAGAACAGTCGAGCAGTGAGGACACTGATGCTGCATTTGAGT
 TGAACACAGTTATTACCTCAGGAAAATCGGTTATCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC214749 representing NM_002603
 Red=Cloning site Green=Tags(s)

MGITLIWCLALVLIKWITSKRRGAISYDSSDQALYIRMLGDVVRVSRAGFESERRGSHPHYIDFRIFHSQ
 SEIEVSVSARNIRRLLSFQRYLRSSRFFRGTAVSNLNLDDDDYNGQAKCMLKVGNNWFDIFLFDRLTN
 GNSLVSLTFHLFSLHGLIEYFHLDMMLRRFLVMIQEDYHSQNPYHNAVHAADVTQAMHCYLKEPKLANS
 VTPWDILLSLIAATHDLDPGVNQPFLLIKTNHYLATLYKNTSVLENHHWRSVAVGLLRESGLFSLPLES
 RQQMETQIGALILATDISRQNEYLSLFRSHLDRGDLCELEDRHRHLVLQALKKADICNPRTWELSKQW
 SEKVTEEFFHQDIEKKYHLGVSPLCDRHTEIANIQIGFMTYLVLEPLFTEWARFSNTRLSTQMLGHVGL
 NKASWGLQREQSSEDTDAAFELNSQLLPQENRLS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg2737_d05.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_002603

ORF Size: 1368 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_002603.4](#)

RefSeq Size: 1739 bp

RefSeq ORF: 1371 bp

Locus ID: 5150

UniProt ID: [Q13946](#)

Cytogenetics: 8q13.1

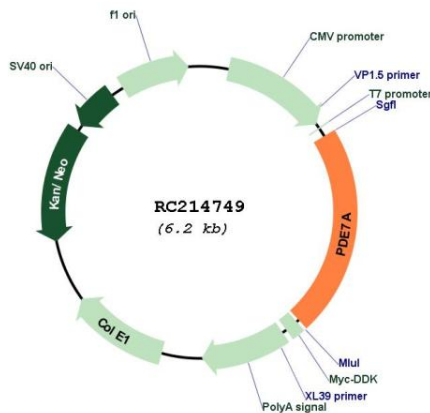
Protein Families: Druggable Genome

Protein Pathways: Progesterone-mediated oocyte maturation, Purine metabolism

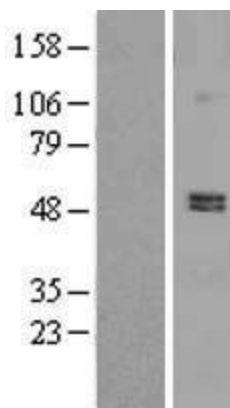
MW: 52.5 kDa

Gene Summary: The protein encoded by this gene belongs to the cyclic nucleotide phosphodiesterase (PDE) family, and PDE7 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 described for this gene. [provided by RefSeq, Jul 2011]

Product images:



Circular map for RC214749



Western blot validation of overexpression lysate (Cat# [LY419221]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214749 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).