

Product datasheet for RC205263

Protein phosphatase inhibitor 1 (PPP1R1A) (NM_006741) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Protein phosphatase inhibitor 1 (PPP1R1A) (NM_006741) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: Protein phosphatase inhibitor 1
Synonyms: I1; IPP1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC205263 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGAGCAAGACAACAGCCCCAAAAGATCCAGTTCACGGTCCCCTGCTGGAGCCGCACCTTGACCCCG
 AGGCGGCGGAGCAGATTCGGAGGCGCCGCCACCCTGCCACCCTCGTGTGCTGACCAGTGACCAGTCATC
 CCCAGAGATAGATGAAGACCGGATCCCCAACCCACATCTCAAGTCCACTTTGGCAATGTCTCCACGGCAA
 CGGAAGAAGATGACAAGGATCACACCCACAATGAAAGAGCTCCAGATGATGGTTGAACATCACCTGGGGC
 AACAGCAGCAAGGAGAGGAACCTGAGGGGGCCGCTGAGAGCACAGGAACCCAGGAGTCCCGCCACCTGG
 GATCCCAGACACAGAAGTGGAGTCAAGGCTGGGCACCTCTGGGACAGCAAAAAAAGTGCAGAATGCATC
 CCTAAAACCTCACGAAAGAGGCGAGTAAGGAACCCAGCACAAAAGAACCTCAACCCATATACCACCACTGG
 ATTCCAAGGGAGCCAACCTCGGTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC205263 protein sequence
 Red=Cloning site Green=Tags(s)

MEQDNSPQKIQFTVPLLEPHLDPEAAEQIRRRRPTATLVLTSDQSSPEIDEDRIPNPHLKSTLAMSPRQ
 RKKMTRITPTMKELQMMVEHHLGQQQGEPEGAAESTGTQESRPPGIPDTEVESRLGTSGTAKKTAECI
 PKTHERGSKEPSTKEPSTHIPP LDSKGAN SV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6027_c05.zip



Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006741

ORF Size: 513 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_006741.2](#), [NP_006732.2](#)

RefSeq Size: 1849 bp

RefSeq ORF: 516 bp

Locus ID: 5502

UniProt ID: [Q13522](#)

Cytogenetics: 12q13.2

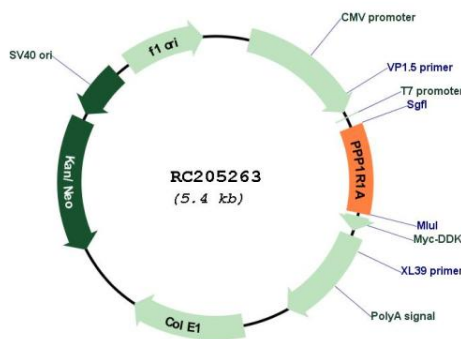
Protein Families: Druggable Genome

Protein Pathways: Long-term potentiation

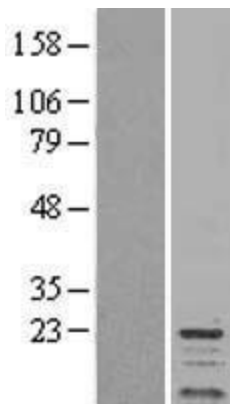
MW: 18.9 kDa

Gene Summary: Inhibitor of protein-phosphatase 1. This protein may be important in hormonal control of glycogen metabolism. Hormones that elevate intracellular cAMP increase I-1 activity in many tissues. I-1 activation may impose cAMP control over proteins that are not directly phosphorylated by PKA. Following a rise in intracellular calcium, I-1 is inactivated by calcineurin (or PP2B). Does not inhibit type-2 phosphatases.[UniProtKB/Swiss-Prot Function]

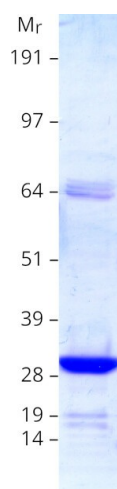
Product images:



Circular map for RC205263



Western blot validation of overexpression lysate (Cat# [LY402013]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205263 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PPP1R1A protein (Cat# [TP305263]). The protein was produced from HEK293T cells transfected with PPP1R1A cDNA clone (Cat# RC205263) using MegaTran 2.0 (Cat# [TT210002]).