

Product datasheet for RC202183

RPIA (NM_144563) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: RPIA (NM_144563) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: RPIA
Synonyms: RPI; RPIAD
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC202183 representing NM_144563
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCAGCGCCCCGGGCCCTTCAGCACCTCTACGGCGGGTCTTGGCCCCGCTGCCCGGAGGGCCGGG
 GCGCGCCTCCGGCGGAGGAGGGAACAGCTGGGACCTCCCGGTTCCACGTGCGGCTGCCGGGCGTGC
 ACAGTCTGGGACCCGTGGCGGTGCTGGCAACACAAGCACCAGCTGCGGGACTCCAACAGCATCTGCCG
 GCCCCTCCACGATGTCCAAGGCCGAGGAGGCCAAGAAGCTGGCGGGCCGCGGGTGTGGAGAACCACG
 TGAGGAATAACCAAGTGTGGGAATTGGAAGTGGTTCTACAATTGTCCATGCTGTGCAGCGAATAGCTGA
 AAGGGTGAAGCAAGAGAATCTGAACCTCGTCTGTATCCCACTTCCTTCCAGGCCGCCAGCTCATCCTG
 CAGTATGGCTTGACCCTCAGTGATCTGGATCGACACCCAGAGATCGACCTTGCCATCGATGGTGCTGATG
 AAGTAGATGCTGATCTCAATCTCATCAAGGGTGGCGGAGGCTGCCTGACCCAGGAGAAGATTGTGGCTGG
 CTATGCTAGTCGTTTCATCGTATCGCTGATTTTCAGGAAAGATTCGAAGAATCTCGGGGATCAGTGGCAC
 AAGGGAATCCCCATCGAGGTCATCCCAATGGCCTATGTCCAGTGAGCCGAGCTGTGAGCCAGAAGTTTG
 GGGCGTGGTTGAACTTCGAATGGCTGTCAACAAGGCTGGTCTGTGGTGACAGATAATGGGAATTTTAT
 CTTGGACTGGAAGTTTGACCGGGTACACAAATGGAGTGAAGTGAATACAGCTATCAAATGATCCAGGT
 GTGGTGGACACAGGCCTATTCATCAACATGGCTGAGAGAGTCTACTTTGGGATGCAGGATGGCTCAGTGA
 ACATGAGGGAGAAGCCTTCTGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202183 representing NM_144563
Red=Cloning site Green=Tags(s)

MQRPGPFSTLYGRVLAPLPGRAGGAASGGGGNSWDLPGSHVRLPGRAQSGTRGGAGNTSTSCGDSNSICP
 APSTMSKAEAEAKLAGRAAVENHVRNNQVLGIGSGSTIVHAVQRIAERVKQENLNLVCIPTSFQARQLIL
 QYGLTSLDLDRHPEIDL AIDGADEV DADLNLIKGGGGCLTQEKIVAGYASRFIVIA DFRKDSKNLGDQWH
 KGIPIEVIPMAYVPVSRAYSQKFGGVVELRMAVNKAGPVVTDNGNFILDWKFDRVHKWSEVNTAIKMIPG
 VVDTGLFINMAERYVFGMQDGSVNMREKPF C

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2822_c09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_144563

ORF Size: 933 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_144563.3](#)

RefSeq Size: 1834 bp

RefSeq ORF: 936 bp

Locus ID: 22934

UniProt ID: [P49247](#)

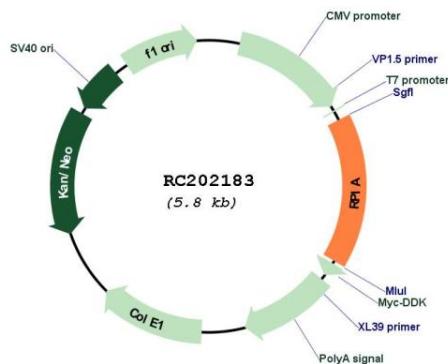
Cytogenetics: 2p11.2

Protein Pathways: Metabolic pathways, Pentose phosphate pathway

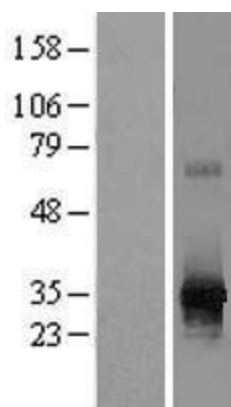
MW: 33.1 kDa

Gene Summary: The protein encoded by this gene is an enzyme, which catalyzes the reversible conversion between ribose-5-phosphate and ribulose-5-phosphate in the pentose-phosphate pathway. This gene is highly conserved in most organisms. The enzyme plays an essential role in the carbohydrate metabolism. Mutations in this gene cause ribose 5-phosphate isomerase deficiency. A pseudogene is found on chromosome 18. [provided by RefSeq, Mar 2010]

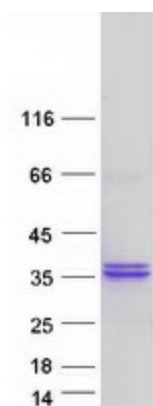
Product images:



Circular map for RC202183



Western blot validation of overexpression lysate (Cat# [LY408273]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202183 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RPIA protein (Cat# [TP302183]). The protein was produced from HEK293T cells transfected with RPIA cDNA clone (Cat# RC202183) using MegaTran 2.0 (Cat# [TT210002]).