

Product datasheet for **RC223925**

PAICS (NM_001079525) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAICS (NM_001079525) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PAICS
Synonyms:	ADE2; ADE2H1; AIRC; PAIS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC223925 representing NM_001079525
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGACAGCTGAGGTACTGAACATTGGTAAAAAATTATATGAGGGTAAAAACAAAAGAAGTCTACGAAT
 TGTTAGACAGTCCAGGAAAAGTCTCTGCAGTCCAAGGACCAGATTACAGCAGGAAATGCAGCTAGAAA
 AAACACCTGGAAGGAAAAGCTGCAATCTCAAATAAAATCACCAGTTGTATTTTTTCAGTTATTACAGGAA
 GCAGTTACCTCATATAAGTCAAATCGTATTAATACTGCCTTCACCAGAAAATGTGGGGAGACAGCTTTCA
 TTGCACCCGAGTGTAAATGATTCCAATTGAATGGGTTTGCAGAAGAATAGCAACTGGTTCTTTCTCAA
 AAGAAATCCTGGTGTCAAGGAAGGATATAAGTTTTACCCACCTAAAGTGGAGTTGTTTTCAAGGATGAT
 GCCAATAATGACCCACAGTGGTCTGAGGAACAGCTGATTGCTGCAAAATTTGCTTTGCTGGACTCTTA
 TAGGCCAGACTGAAGTGATATCATGAGTCATGCTACACAGGCTATATTTGAAATACTGGAGAAAATCCTG
 GTTGCCCAAGAAATGTACTACTGGTTGATATGAAGATTGAATTTGGTGTGATGTAAACCACCAAGAAAT
 GTTCTTGCTGATGTTATTGACAATGATTCTGGAGACTCTGGCCATCAGGAGATCGAAGCCAACAGAAAAG
 ACAACAGTCTTATCGGGACCTCAAAGAAGTAACTCCTGAAGGGCTCAAATGGTAAAGAAAAACTTTGA
 GTGGGTTGCAGAGAGAGTAGAGTTGCTTTTGAATCAGAAAAGTCAGTGCAGGGTTGTAGTGTGATGGGC
 TCTACTTCTGATCTTGGTCACTGTGAAAAAATCAAGAAGGCTGTGGAAATTTGGCATTCCATGTGAAC
 TTCGAGTAACATCTGCGCATAAAGGACCAGATGAAACTCTGAGGATTAAGCTGAGTATGAAGGGGATGG
 CATTCTACTGTATTTGTGGCAGTGGCAGGCAGAGAAGTAAATGGTTTGGGACCAGTGTGTGGGAACACT
 GCATATCCAGTTATCAGCTGTCTCCCTCACACCAGACTGGGGAGTTCAGGATGTGTGGTCTTCTCTTC
 GACTACCCAGTGGTCTTGGCTTCAACCGTACTTTCTCCAGAAGGATCAGCTCAATTTGCTGCTCAGAT
 ATTTGGGTTAAGCAACCATTTGGTATGGAGCAAACCTGCGAGCAAGCATTTTGAACACATGGATTTCTTTG
 AAGCAGGCTGACAAGAAAATCAGAGAATGTAATTTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC223925 representing NM_001079525
 Red=Cloning site Green=Tags(s)

MATAEVLNIGKKLYEGKTKEYELLDSPGKVLQSKDQITAGNAARKNHLEGKAAISNKITSCIFQLLQE
 AVTSYKSNRIKTAFTKCGETAFAIAPQCEMPIEWVCRRIATGSFLKRNPGVKEGYKFPYPPKVELFFKDD
 ANNDPQWSEEQLIAAKFCFAGLLIGQTEVDIMSHATQAIFEILEKSWLPQNCTLVDMKIEFGVDVTTKEI
 VLADVIDNDSWRLWPSGDRSQQDKQSYRDLKEVTPEGLQMVKKNFVWAERVELLLKSESQCRVVVLMG
 STSDLGHCEKIKKACGNFGIPCELRVTSAHKGPDETLRIKAEYEGDGIPTVFVAVAGRSNGLGPVMSGNT
 AYPVISCPPLTPDWGVQDVWSSLRLPSGLGCSTVLSPEGSAQFAAQIFGLSNHLVWSKLRASILNTWISL
 KQADKKIIRECNL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8059_e07.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_001079525

ORF Size: 1296 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).

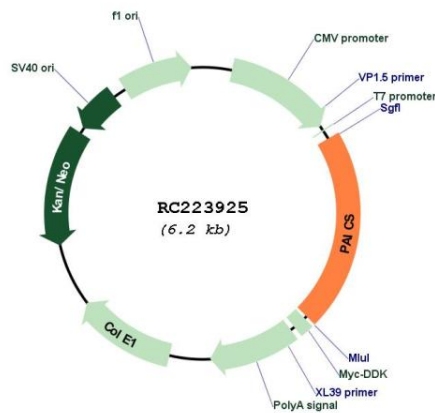
- Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid 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_001079525.2](#)

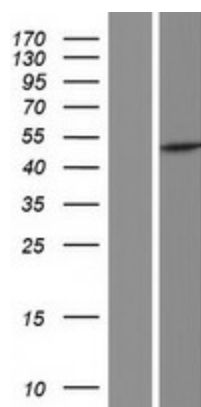
RefSeq Size: 3350 bp
 RefSeq ORF: 1299 bp
 Locus ID: 10606
 UniProt ID: [P22234](#)
 Cytogenetics: 4q12
 Protein Families: Druggable Genome
 Protein Pathways: Metabolic pathways, Purine metabolism
 MW: 47.8 kDa

Gene Summary: This gene encodes a bifunctional enzyme containing phosphoribosylaminoimidazole carboxylase activity in its N-terminal region and phosphoribosylaminoimidazole succinocarboxamide synthetase in its C-terminal region. It catalyzes steps 6 and 7 of purine biosynthesis. The gene is closely linked and divergently transcribed with a locus that encodes an enzyme in the same pathway, and transcription of the two genes is coordinately regulated. The human genome contains several pseudogenes of this gene. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC223925



Western blot validation of overexpression lysate (Cat# [LY421515]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC223925 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).