

Product datasheet for **RC203452**

ISYNA1 (NM_016368) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	ISYNA1 (NM_016368) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ISYNA1
Synonyms:	INO1; INOS; IPS; IPS-1; IPS 1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC203452 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGGCCGCCCGCCAGTTCTTCGTCGAGAGCCCGACGTGGTCTACGGCCCCGAGGCCATCGAGGCGC
 AATACGAGTACCGGACGACGCGCGTTCAGCCGCGAGGGTGGCGTTCTCAAGGTGCACCCACGTCCACGCG
 CTTACACTTCGGACCGCCCGGACGAGTGCCTCGGCTCGGGTTCATGCTTGTCTGGCTGGGGCGGGAACAAC
 GGCTCCACACTACCGCCGCGGTGCTGGCCAATCGACTGCGTTTGTCTGGCCACGCGCAGCGGCCGA
 AGGAGGCCAACTACTACGGCTCGCTGACTCAGGCGGGCACCGTAGCCTGGGCCTGGACGCCGAGGGCCA
 GGAGGTGTTCTGACCTTCAGCGCGGTGCTGCCATGGTGGCGCCCAACGACCTCGTGTTCGATGGCTGG
 GACATCTCGTCTGACCTGGCCGAGGCGATGCGGCGCGCAAGGTGCTGGACTGGGGCTGCAGGAGC
 AACTGTGGCCGCACATGGAGGCCCTGCGGCCCGGCTTCTGTTACATCCCCGAATTCATCGCGCCAA
 CCAGAGCGCGCGCGGACAACCTCATCCAGGCTCGCTGCGCAGCAGCTGGAGCAGATCCGCAGGGAC
 ATCCGAGACTTCCGGTCTAGCGCGGGCTGGACAAAGTCATAGTCTGTGGACGGCGAACACGGAGCGCT
 TCTGTGAGGTGATTCCAGGCCTCAACGACACAGCCGAGAACCTGCTGCGCACCATTTAGCTCGGTCTGGA
 GGTGTGCGCCTCCACGCTCTTCGCCGTGGCCAGCATCCTGGAGGGCTGTGCCCTTCTCAATGGGTCTCCG
 CAGAACACCCTGGTGCCTGGAGCTTTCAGCTCGGTGGCAGCACCGGGTTTTGTGGCGGAGATGACT
 TCAAGTCAGGCCAGACCAAAGTCAAGTCCGTGCTTGTGGACTTCTCATTGGCTCCGGCTCAAGACCAT
 GTCCATCGTGAGTTACAACACCTGGGCAACAACGATGGGGAGAACCATCGGCGCCATTGCAGTCCCGC
 TCTAAGGAGGTGTCCAAGAGCAACGTGGTGGACGACATGGTGCAGAGCAACCCAGTGTCTATACGCCCG
 GCGAAGAGCCTGACCACTGCGTGGTTCATCAAGTATGTGCCGTAGTGGGTGACAGCAAGCGCGCGCTGGA
 TAGTATACCTCGGAGCTGATGCTGGGCGGAACCAACACACTGGTGTGACAACACGTGTGAGGACTCG
 CTGCTGGCCGACCCATCATGCTGGACCTAGCGCTGCTGACCGAGCTGTGCCAGCGCTGAGCTTCTGCA
 CTGACATGGACCCGAGCCGACGACCTTCCACCCGCTGCTGTCCCTGCTCAGCTTCTCTTCAAGGCGCC
 ACTAGTGGCCCGGCGAGCCCGGTGGTCAATGCGCTTTTCCGCCAGCGCAGCTGCATCGAGAACATCCTC
 AGGGCCTGCGTGGGGCTCCCGCCACAGAACACATGCTCTGGAACACAAAATGGAGCGCCAGGGCCCA
 GCCTCAAGCGAGTTGGACCCGTGGCTGCCACCTACCTATGTTGAACAAGAAAGGACCGGTACCCGCTGC
 CACCAATGGCTGCACCGGTGATGCCAATGGGCATCTGCAAGAGGAGCCCCCAATGCCACCACC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203452 protein sequence
 Red=Cloning site Green=Tags(s)

MEAAAQFFVESPDVYVYGPEAIEAQYEYRTRVRSREGGVLKVHPTSTRFTFRTARQVPRGLVMLVWGNN
 GSTLTAAVLANRLRLSWPTRSGRKEANYYGSLTQAGTVSLGLDAEQEVFVPFSAVLPMPVAPNDLVFDGW
 DISSLNLAEMRRAKVLDWGLQEQLWPHMEALRPRPSVYIPEFIAANQSARADNLIPGSRAQQLEQIRRD
 IRDFRSSAGLDKVIWLWTANTERFCEVIPGLNDAENLLRTIELGLEVSPSTLFAVASILEGCAFLNGSP
 QNTLVPGALELAWQHRVFVGGDDFKSQTKVKSVLVDFLIGSGLKTMISIVSNHLGNNDGENLSAPLQFR
 SKEVSKSNVVDDMVQSNPVLYTPGEEPDCVVIKYPYVGDGSKRALDEYTSLEMLGGTNTLVHNTCED
 LLAAPIMLDLALLTELCQRVSFCTDMDPEPQTFHPVLSLLSFLFKAPLVPPGSPVVALFRQRSCINIL
 RACVGLPPQNHMLLEHKMERPGPSLKRVPVAATYPMLNKKGPVPAATNGCTGDANGHLQEPPMPTT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6423_g10.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_016368

ORF Size: 1674 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_016368.5](#)

RefSeq Size: 2427 bp

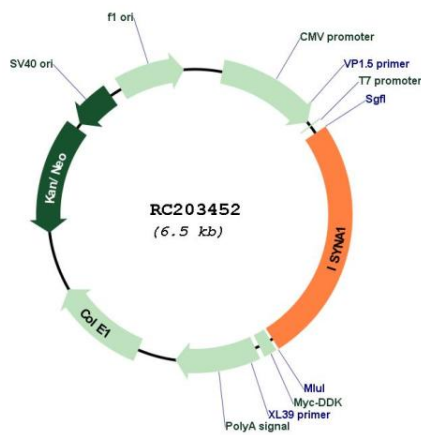
RefSeq ORF: 1677 bp

Locus ID: 51477

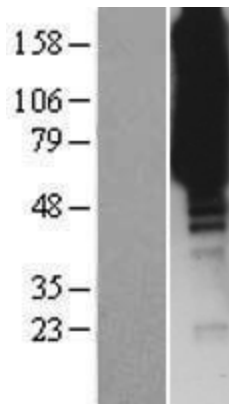
UniProt ID: [Q9NPH2](#)

Cytogenetics:	19p13.11
Domains:	Inos-1-P_synth
Protein Families:	Druggable Genome
Protein Pathways:	Inositol phosphate metabolism, Metabolic pathways
MW:	61.1 kDa
Gene Summary:	This gene encodes an inositol-3-phosphate synthase enzyme. The encoded protein plays a critical role in the myo-inositol biosynthesis pathway by catalyzing the rate-limiting conversion of glucose 6-phosphate to myoinositol 1-phosphate. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene, and a pseudogene of this gene is located on the short arm of chromosome 4. [provided by RefSeq, Nov 2011]

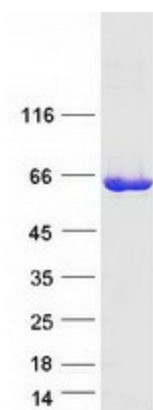
Product images:



Circular map for RC203452



Western blot validation of overexpression lysate (Cat# [LY413986]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203452 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ISYNA1 protein (Cat# [TP303452]). The protein was produced from HEK293T cells transfected with ISYNA1 cDNA clone (Cat# RC203452) using MegaTran 2.0 (Cat# [TT210002]).