

## Product datasheet for **RC203902**

### **PUS7 (NM\_019042) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PUS7 (NM_019042) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PUS7
Synonyms:	IDDABS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC203902 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGAGATGACAGAAATGACTGGTGTGTCGCTGAAACGTGGGCACTGGTTGTCAAGATAATGACAGTG  
GAGTCCCAGTTGAAGAGACAAAAAACAGAAGCTGTCGGAATGCAGCCTAACCAAAGGTCAAGATGGGCT  
ACAGAATGACTTTCTGTCCATCAGTGAAGACGTGCCTCGGCCTCCTGACTGTGACTGCGGAAAGGT  
GGAAGAATTCTGAGGCTCAGTTGGAAGATGAGGAAGAAGAGGAGGAAGATGGACTTTCAGAGGAGTGCG  
AGGAGGAGGAATCAGAGAGTTTTGCAGACATGATGAAGCATGGACTCACTGAGGCTGACGTAGGCATCAC  
CAAGTTTGTGAGTTCTCATCAAGGGTTCTCGGGAATCTTAAAAGAAAGATACTCCGACTTCGTTGTTTAT  
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CAGAAGACATATTTACAGTTTTGACAGCTGAAGAAAAGCAGCGATTGGAAGAGCTCCAGCTGTTCAAAAA  
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ACCACGCAGCTGGGAAAAAGGCTTTGGCAAATCCAAGAAAACATTCTTGGCCAAAATCTAGGGGAAGTTA  
CTGCCACTTCGTAATATAAAGGAAAACAAAGACACCATGGATGCTATTAATGTAATCTCCTCAAAATCTTA  
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TTTCAGCTATCAAAAAACCCACTGAAATTGGGAGAGCTTCAAGGAAACCACTTCACTGTTGTTCTCAGA  
AATATAACAGGAACTGATGACCAAGTACAGCAAGCTATGAACTCTCTCAAGGAGATTGGATTTATTAAT  
ACTATGGAATGCAAAGATTTGGAACCACAGCTGTCCCTACGTATCAGTTGGAAGAGCTATACTACAAAA  
TTCCTGGACAGAAGTCATGGATTTAATATTGAAACCCCGCTCTGGAGCTGAAAAGGGCTACTTGGTTAAA  
TGACAGAGAAGAATGGGCAAGACCAAAGACCAACTGCTGCCCTCAGAAAACCTGTCAAAGGTGTG  
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ACCCAGAAATAATCGCTTAATGTATATTCATAGCTACCAAAGCTATGTGTGGAATAACATGGTAAGCAAG  
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TTGAGGAAGATGATGTTAATAATTACTCTATCCATGATGTGTAATGCCCTTGCCTGGTTTCGATGTTAT  
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TTAGCTGGGAAGTCGTTGCATATGATGATCCCAAATTCACCTTTTCAACACAGATGTGGACAACCTAGA  
AGGGAAGACACCACAGTTTTGCTTCTGAAGGCAAATACAGGGCTCTGAAAATGGATTTTTCTCTACCC  
CCTTCTACTTACGCCACCATGGCCATTCGAGAAGTGCTAAAAATGGATACCAGTATCAAGAACCAGACGC  
AGCTGAATACAACCTGGCTTCGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC203902 protein sequence  
Red=Cloning site Green=Tags(s)

```
MEMTEMTGVS LKRGALVVEDNDSGVPVEETKKQKLSECSLTKGQDGLQNDFLSISEDVPRPPDVTSTGKG
GKNSEAQLEDEEEEEEDGLSECEEEEESESFADMMKHGLTEADVGITKVFSSHQFGSGILKERYSDFFVHV
EIGKDGRI SHLNDLSIPVDEEDPSEDIFTVLTAEKQRLEELQLFKNKETSV AIEVIEDTKERTIIHQ A
IKSLFPGLETKTEDREGKKYIVAYHAAGKKALANPRKHSWPKSRGSYCHFVLYKENKDTMDAINVLSKYL
RVKPNIFSYMGTKDKRAITVQEIAVLKITAQRLAHLNKCLMNFKLGNF SYQKNPLKLGELQGNHFTVVL R
NITGTDQVQQAMNSLKEIGFINYYGMQRFGTTAVPTYQVGRAILQNSWTEVMDLILKPRSGAEKGYLVK
CREEWAKTKDPTAALRKLKPVKRCVEGQLLRGLSKYGMKNIVS AFGIIPRNNRLMYIHSYQSYVWNNMYSK
RIEDYGLKVPVPGDLVLK GATATYIEEDDVNNYSIHDVVMPLPGFDVIYPKHKIQEAYREMLTADNLDIDN
MRHKIRDYSLSGAYRKIIIRPQNVSWEVAYDDPKIPLFNTDVDNLEGKTPPVFASEGKYRALKMDFSLP
PSTYATMAIREVLKMDTSIKNQTLNTTWLR
```

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6303\\_c05.zip](https://cdn.origene.com/chromatograms/mk6303_c05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_019042

**ORF Size:** 1983 bp

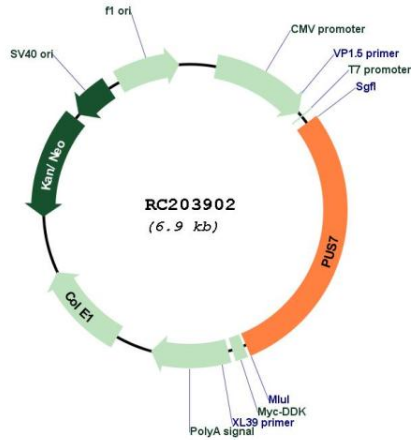
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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.

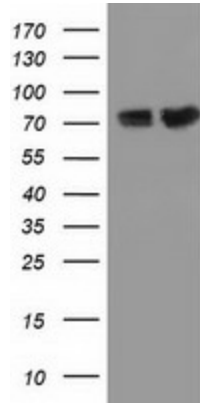
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_019042.5</u>
<b>RefSeq Size:</b>	3484 bp
<b>RefSeq ORF:</b>	1986 bp
<b>Locus ID:</b>	54517
<b>UniProt ID:</b>	<u>Q96PZ0</u>
<b>Cytogenetics:</b>	7q22.3
<b>MW:</b>	75 kDa
<b>Gene Summary:</b>	<p>Pseudouridylate synthase that catalyzes pseudouridylation of RNAs (PubMed:28073919, PubMed:29628141). Acts as a regulator of protein synthesis in embryonic stem cells by mediating pseudouridylation of RNA fragments derived from tRNAs (tRFs): pseudouridylated tRFs inhibit translation by targeting the translation initiation complex (PubMed:29628141). Also catalyzes pseudouridylation of mRNAs: mediates pseudouridylation of mRNAs with the consensus sequence 5'-UGUAG-3' (PubMed:28073919). In addition to mRNAs and tRNAs, binds other types of RNAs, such as snRNAs, Y RNAs and vault RNAs, suggesting that it can catalyze pseudouridylation of many RNA types (PubMed:29628141).[UniProtKB/Swiss-Prot Function]</p>

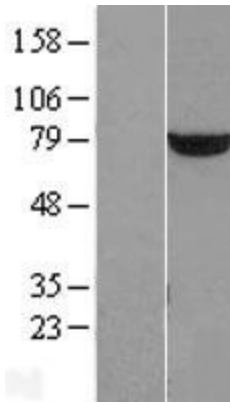
Product images:



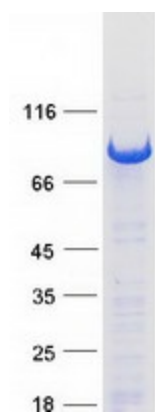
Circular map for RC203902



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PUS7 (Cat# RC203902, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PUS7 (Cat# [TA501816]). Positive lysates [LY412749] (100ug) and [LC412749] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY412749]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203902 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PUS7 protein (Cat# [TP303902]). The protein was produced from HEK293T cells transfected with PUS7 cDNA clone (Cat# RC203902) using MegaTran 2.0 (Cat# [TT210002]).