

## Product datasheet for **RC227925**

### **WFS1 (NM\_001145853) Human Tagged ORF Clone**

#### **Product data:**

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids                        |
| Product Name:             | WFS1 (NM_001145853) Human Tagged ORF Clone |
| Tag:                      | Myc-DDK                                    |
| Symbol:                   | WFS1                                       |
| Synonyms:                 | CTRCT41; WFRS; WFS; WFSL                   |
| Mammalian Cell Selection: | Neomycin                                   |
| Vector:                   | pCMV6-Entry (PS100001)                     |
| E. coli Selection:        | Kanamycin (25 ug/mL)                       |



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**ORF Nucleotide Sequence:**

>RC227925 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGACTCCAACACTGCTCCGCTGGGCCCTCCTGCCACAGCCCCGCCAGCACCCGAGCCCCAGGCGC  
 GTTCCCGACTCAATGCCACAGCCTCGTTGGAGCAGGAGAGGAGCGAAAGGCCCGAGCACCCGGACCCCA  
 GGCTGGCCCTGGCCCTGGTGTAGAGACGACGGCCCGCTGAACCCAGGCCAGCATAACCAGGAGC  
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 GAGCTCAAGGCCATCAGCTGCCTCAACTGCATGGCCAGCTCTCACCCACCAGGCGGCACGTGAAGATCG  
 AGCAGGACTGGCGCAGCACCGTGCATGGCGCCGTGAAGTTCGCTTCGACTTCTTTTTCTTCCATTCTCT  
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**ACCGGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC227925 protein sequence  
 Red=Cloning site Green=Tags(s)

```
MDSNTAPLGPSCPQPPAPQPQARSRLNATASLEQERSERPRAPGPQAGPGVGRDAAAPAEQQAQHTRS
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AVKLLRRLCLADRRGITSENERVRQLSSETDLERAVRKAALVMYWKLNPKKKKQVAVAEELLENVQVNEH
DGAQPGVPKSLQKQRMLERLVSSSESKNYIALDDFVEITKKYAKGVIPSSFLQDDEDDDELAKKSPE
DLPLRLKVVKYPLHAIMEIKEYLIDMASRAGMHWLSTIIPTHHINALIFFFIVSNLTIDFFAFFIPLVIF
YLSFISMVICTLKVFQDSKAWENFRTLTDLLRFEPNLDVEQAEVNFNGWNHLEPYAHFLLSVFFVIFSFP
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IGYFLFLFALPILVAGLALVGLVQFARWFTSLELTKIAVTAVCSVPLLLRWWTKASFVVGVMVKSLTRS
SMVKLILVWLTAIVLFCWFVYRSEGMKVYNSTLTWQQYGALCGPRAWKETNMARTQILCSHLEGHRVTW
TGRFKYVRVTDIDNSAESAINMLPFFIGDWMRCLYGEAYPACSPGNTSTAEELCRLKLLAKHPCHKKFK
DRYKFEITVGMPPFSSGADGSRGREDDVTKDIVLRASSEFKSVLLSLRQGSLEIFSTILEGRLGSKWPVF
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```

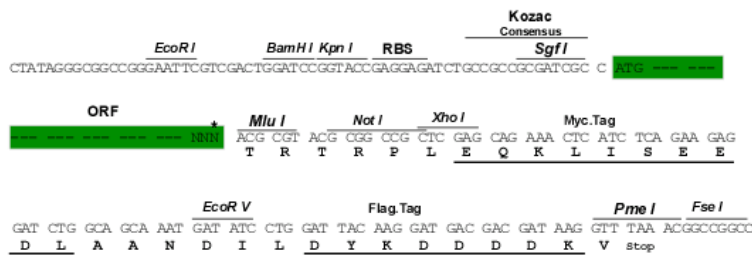
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6291\\_b09.zip](https://cdn.origene.com/chromatograms/mk6291_b09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



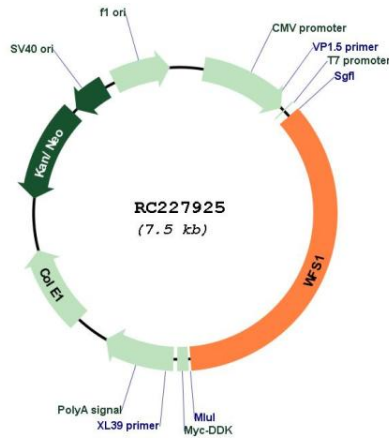
\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_001145853

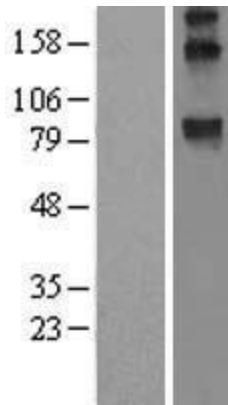
|                               |  |
|-------------------------------|--|
| <b>ORF Size:</b>              | 2670 bp  |
| <b>OTI Disclaimer:</b>        | <p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations 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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p> |
| <b>OTI Annotation:</b>        | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.   |
| <b>Components:</b>            | 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>RefSeq:</b>                | <a href="#">NM_001145853.1</a> , <a href="#">NP_001139325.1</a>  |
| <b>RefSeq Size:</b>           | 3636 bp  |
| <b>RefSeq ORF:</b>            | 2673 bp  |
| <b>Locus ID:</b>              | 7466   |
| <b>UniProt ID:</b>            | <a href="#">O76024</a>   |
| <b>Cytogenetics:</b>          | 4p16.1   |
| <b>Protein Families:</b>      | Druggable Genome, Transmembrane  |
| <b>MW:</b>                    | 100.3 kDa  |

**Gene Summary:**

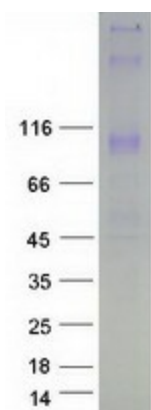
This gene encodes a transmembrane protein, which is located primarily in the endoplasmic reticulum and ubiquitously expressed with highest levels in brain, pancreas, heart, and insulinoma beta-cell lines. Mutations in this gene are associated with Wolfram syndrome, also called DIDMOAD (Diabetes Insipidus, Diabetes Mellitus, Optic Atrophy, and Deafness), an autosomal recessive disorder. The disease affects the brain and central nervous system. Mutations in this gene can also cause autosomal dominant deafness 6 (DFNA6), also known as DFNA14 or DFNA38. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Mar 2009]

**Product images:**


Circular map for RC227925



Western blot validation of overexpression lysate (Cat# [LY429034]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC227925 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified WFS1 protein (Cat# [TP327925]). The protein was produced from HEK293T cells transfected with WFS1 cDNA clone (Cat# RC227925) using MegaTran 2.0 (Cat# [TT210002]).