

## Product datasheet for **RC403479**

### Wilms Tumor Protein (WT1) (NM\_024426) Human Mutant ORF Clone

#### Product data:

Product Type:	Mutant ORF Clones
Product Name:	Wilms Tumor Protein (WT1) (NM_024426) Human Mutant ORF Clone
Mutation Description:	C456R
Affected Codon#:	456
Affected NT#:	1366
Nucleotide Mutation:	WT1 Mutant (C456R), Myc-DDK-tagged ORF clone of Homo sapiens Wilms tumor 1 (WT1), transcript variant D as transfection-ready DNA
Effect:	Nephrotic syndrome
Symbol:	WT1
Synonyms:	AWT1; GUD; NPHS4; WAGR; WIT-2; WT33
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_024426
ORF Size:	1551 bp
Restriction Sites:	Sgfl-Mlul



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**ORF Nucleotide Sequence:**

>RC403479 representing NM\_024426  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATG**CAGGACCCGGCTTCCACGTGTGTCCCGGAGCCGGCTCTCAGCACACGCTCCGCTCCGGGCCTGGT**  
**GCCTACAGCAGCCAGAGCAGCAGGGAGTCCGGGACCCGGCGGCATCTGGGCAAGTTAGCGCCGCCGA**  
**GGCCAGCGCTGAACGTCTCCAGGGCCGAGGAGCCGCGGGCGTCCGGTCTGAGCCGACGAAATGGGC**  
**TCCGACGTGCGGGACCTGAACGCGCTGCTGCCCGCTCCCTCCCTGGGTGGCGGCGCGGCTGTGCC**  
**TGCTGTGAGCGCGCGCGCAGTGGCGCCGGTGTGGACTTTGCGCCCCGGGCGCTTCGGCTTACGG**  
**GTCGTTGGGCGGCCCGCGCCGACCCGGCTCCGCCGCCACCCCGCGCGCGCCCTACTCCTTCATC**  
**AAACAGGAGCCGAGCTGGGGCGCGGAGCCGCACGAGGAGCAGTGCCTGAGCGCCTTACTGTCCACT**  
**TTTCCGGCCAGTTCACTGGCACAGCCGAGCCTGTGCTACGGGCCCTTCGGTCTCTCCGCCAGCCA**  
**GGCGTCATCCGGCCAGGCCAGGATGTTTCTAACGCGCCCTACCTGCCAGCTGCCTCGAGAGCCAGCCC**  
**GCTATTCGCAATCAGGGTTACAGCACGGTCACCTTCGACGGGACGCCAGCTACGGTACACGCCCTCGC**  
**ACCATGCGGCGCAGTTCCCAACCACTATTCAAGCATGAGGATCCCATGGGCCAGCAGGGCTCGTGGG**  
**TGAGCAGCAGTACTCGGTGCCGCCCGGTCTATGGTGCCACACCCCAACCGACAGCTGCACCGGCAGC**  
**CAGGCTTTGCTGCTGAGGACGCCCTACAGCAGTGAATTTATACCAATGACATCCCAGCTTGAATGCA**  
**TGACCTGGAATCAGATGAACTTAGGAGCCACCTTAAAGGGAGTTGCTGCTGGGAGCTCCAGCTCAGTAA**  
**ATGGACAGAAGGGCAGAGCAACCACAGCACAGGGTACGAGAGCGATAACCACACAACGCCATCCTCTGC**  
**GGAGCCCAATACAGAATACACACGCACGGTGTCTTACAGGGCATTGAGGATGTGCGACGTGTGCCGGAG**  
**TAGCCCCGACTTTGTACGGTCCGCATCTGAGACCAGTGAAGAACGCCCTTTCATGTGCTTACCCAGG**  
**CTGCAATAAGAGATATTTTAAGCTGTCCCACTTACAGATGCACAGCAGGAAGCACACTGGTGAGAAACCA**  
**TACCAGTGTGACTTCAAGGACTGTGAACGAAGTTTTTCTCGTTACAGCAGCTCAAAAGACCAAAAGGA**  
**GACATACAGGTGTGAAACCATTCCAGTGTAAAACCTCGTCAGCGAAAGTTCTCCCGGTCCGACCACCTGAA**  
**GACCCACACCAGGACTCATAAGGTAACAAGTGAAGGCCCTTACAGTGTGCGTGGCCAAAGTTGTGAG**  
**AAAAAGTTTCCCGGTGAGTGAATTAGTCCGCCATCACAAATGCATCAGAGAAACATGACCAAACTCC**  
**AGCTGGCGCTT**

AG**GCGACCG**ACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

**Protein Sequence:**

>RC403479 representing NM\_024426  
 Red=Cloning site Green=Tags(s)

MQDPASTCVPEPASQHTLRSGPGCLQQPEQQVDRDPGGIWA<sup>L</sup>GAAEASAERLQRRSRGASGSEPPQMG  
 SDV<sup>R</sup>DLNALLPAVPSLGGGGCALPVS<sup>G</sup>AAQWAPVLDFA<sup>P</sup>PGASAYGSLGGPAPPAPPPPPPPPHSFI  
 KQEPSWGAEPHEEQCLSAFTVHFSGQFTGTAGACRYGPF<sup>G</sup>PPPPSQASSGQARMFPNAPYLPS<sup>C</sup>LESQP  
 AIRNQYSTVTFDGT<sup>P</sup>SYGHTPSHAAQFPNHSFKHEDPMGQ<sup>Q</sup>GSLEQQYSVPPPVYGCHTP<sup>T</sup>D<sup>S</sup>CTGS  
 QALLLRTPYSSDNL<sup>Y</sup>QMTSQLECM<sup>T</sup>WNQ<sup>M</sup>NL<sup>G</sup>ATLKGVAAGSSSVK<sup>W</sup>TEGQSNHSTGYESD<sup>N</sup>H<sup>T</sup>PI<sup>L</sup>C  
 GAQYRIHTHG<sup>V</sup>FRGIQ<sup>D</sup>VRRVPGVAP<sup>T</sup>L<sup>V</sup>RSASETSEK<sup>R</sup>PFMCAYPGCN<sup>K</sup>RYFKLSHLQ<sup>M</sup>HSR<sup>K</sup>H<sup>T</sup>G<sup>E</sup>K<sup>P</sup>  
 YQCDFKDCERRFS<sup>R</sup>SDQLKR<sup>H</sup>QRRHTG<sup>V</sup>KPFQCKTR<sup>Q</sup>RKF<sup>S</sup>RS<sup>D</sup>HLK<sup>T</sup>H<sup>T</sup>R<sup>T</sup>H<sup>T</sup>G<sup>K</sup>TSEK<sup>P</sup>F<sup>S</sup>CRW<sup>P</sup>SC<sup>Q</sup>  
 KKFARSDELVRHHNM<sup>H</sup>QRN<sup>M</sup>T<sup>K</sup>L<sup>Q</sup>L<sup>A</sup>L

SGP<sup>T</sup>RRRLE<sup>Q</sup>KLI<sup>S</sup>EEDLAANDIL<sup>D</sup>YKDDDD<sup>K</sup>V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**

**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](mailto: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).

**RefSeq:**

[NP\\_077744](#)

**RefSeq Size:**

1551 bp

**RefSeq ORF:**

1569 bp

**Locus ID:**

7490

**Cytogenetics:**

11p13

**Domains:**

WT1, zf-C2H2

**Protein Families:**

Druggable Genome, Transcription Factors

**MW:**

56.9 kDa

**Gene Summary:**

This gene encodes a transcription factor that contains four zinc-finger motifs at the C-terminus and a proline/glutamine-rich DNA-binding domain at the N-terminus. It has an essential role in the normal development of the urogenital system, and it is mutated in a small subset of patients with Wilms tumor. This gene exhibits complex tissue-specific and polymorphic imprinting pattern, with biallelic, and monoallelic expression from the maternal and paternal alleles in different tissues. Multiple transcript variants have been described. In several variants, there is evidence for the use of a non-AUG (CUG) translation initiation codon upstream of, and in-frame with the first AUG. Authors of PMID:7926762 also provide evidence that WT1 mRNA undergoes RNA editing in human and rat, and that this process is tissue-restricted and developmentally regulated. [provided by RefSeq, Mar 2015]