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Product datasheet for RC403441

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:	Q253X
Affected Codon#:	253
Affected NT#:	757
Nucleotide Mutation:	WT1 Mutant (Q253X), Myc-DDK-tagged ORF clone of Homo sapiens Wilms tumor 1 (WT1), transcript variant D as transfection-ready DNA
Effect:	Wilms tumour
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:	756 bp
Restriction Sites:	Sgfl-Mlul



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	Wilms Tumor Protein (WT1) (NM_024426) Human Mutant ORF Clone – RC403441
ORF Nucleotide Sequence:	<pre>>RC403441 representing NM_024426 Red=Cloning site Blue=ORF Green=Tags(s)</pre>
	TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCC <mark>GCGATCGC</mark> C
	ATGCAGGACCCGGCTTCCACGTGTGTCCCGGAGCCGGCGTCTCAGCACACGCTCCGCTCCGGGCCTGGGT GCCTACAGCAGCCAGAGCAGCAGGAGTCCGGGACCCGGGGCGCATCTGGGCCAAGTTAGGCGCCGCGA GGCCAGCGCTGAACGTCTCCAGGGCCGGAGGAGCCGCGGGGGCGTCCGGGTCTGAGCCGCAGCAAATGGGC TCCGACGTGCGGGACCTGAACGCGCTGCTGCCCGCCGCCGCCCCCCGGGGGGCGGCGGCG
	AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC TGGATTACAAGGATGACGACGA TAAG GTTTAA
Protein Sequence	<pre>>RC403441 representing NM_024426 Red=Cloning site Green=Tags(s)</pre>
	MQDPASTCVPEPASQHTLRSGPGCLQQPEQQGVRDPGGIWAKLGAAEASAERLQGRRSRGASGSEPQQMG SDVRDLNALLPAVPSLGGGGGCALPVSGAAQWAPVLDFAPPGASAYGSLGGPAPPPAPPPPPPPHSFI KQEPSWGGAEPHEEQCLSAFTVHFSGQFTGTAGACRYGPFGPPPPSQASSGQARMFPNAPYLPSCLESQP AIRNQGYSTVTFDGTPSYGHTPSHHAAQFPNHSFKHEDPMGQ
	SGPTRTRRLEQKLISEEDLAANDILDYKDDDDKV
Restriction Sites:	Sgfl-Mlul
Cloning Scheme:	Cloning sites used for ORF Shuttling:
	Kozac EcoRI BamHI Kpn I RBS SgfI CTATAGGGGGGGGGGAATTCGGTCGGATCGGGTACCGGAGGAGAATCTGCCGCGGGGATCGC C KTO
	ORF <u>Mlu I Not I Xho I</u> Myc.Tag ACG CGT ACG CGG CCG CTC GAG GAG AAA CTC ATC TCA GAA GAG T R T R P L E Q K L I S E E
	Ecor V Flag.Tag Pme I Fse I GAT CTG GCA GCA AAT GAT ATC CTG GAT TAC AAG GAT GAC GAC GAC GAT AAG GTT TAA ACGGCCGGGCC D L A N D I L D Y K D D D K V stop
	* The last codon before the Stop codon of the ORF

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	Wilms Tumor Protein (WT1) (NM_024426) Human Mutant ORF Clone – RC403441
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 <u>custsupport@origene.com</u> 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. <u>More info</u>
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:	<u>NP 077744</u>
RefSeq Size:	756 bp
RefSeq ORF:	1569 bp
Locus ID:	7490
Cytogenetics:	11p13
Domains:	WT1, zf-C2H2
Protein Families:	Druggable Genome, Transcription Factors
MW:	27.7 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]

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