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Product datasheet for RC403467

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:	Q437P
Affected Codon#:	437
Affected NT#:	1310
Nucleotide Mutation:	WT1 Mutant (Q437P), Myc-DDK-tagged ORF clone of Homo sapiens Wilms tumor 1 (WT1), transcript variant D as transfection-ready DNA
Effect:	Denys-Drash 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:	SgfI-MluI

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ORF Nucleotide Sequence:

>RC403467 representing NM_024426
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAGGACCCGGCTTCCACGTGTGTCCCGGAGCCGGCGTCTCAGCACACGCTCCGCTCCGGGCCTGGGT
GCCTACAGCAGCCAGAGCAGCAGGGAGTCCGGGACCCGGGCGGCATCTGGGCCAAGTTAGGCGCCGCCGA
GGCCAGCGCTGAACGTCTCCAGGGCCGGAGGAGCCGCGGGGCGTCCGGGTCTGAGCCGCAGCAAATGGGC
TCCGACGTGCGGGACCTGAACGCGCTGCTGCCCGCCGTCCCCTCCCTGGGTGGCGGCGGCGGCTGTGCCC
TGCCTGTGAGCGGCGCGGCGCAGTGGGCGCCGGTGCTGGACTTTGCGCCCCCGGGCGCTTCGGCTTACGG
GTCGTTGGGCGGCCCCGCGCCGCCACCGGCTCCGCCGCCACCCCCGCCGCCGCCGCCTCACTCCTTCATC
AAACAGGAGCCGAGCTGGGGCGGCGCGGAGCCGCACGAGGAGCAGTGCCTGAGCGCCTTCACTGTCCACT
TTTCCGGCCAGTTCACTGGCACAGCCGGAGCCTGTCGCTACGGGCCCTTCGGTCCTCCTCCGCCCAGCCA
GGCGTCATCCGGCCAGGCCAGGATGTTTCCTAACGCGCCCTACCTGCCCAGCTGCCTCGAGAGCCAGCCC
GCTATTCGCAATCAGGGTTACAGCACGGTCACCTTCGACGGGACGCCCAGCTACGGTCACACGCCCTCGC
ACCATGCGGCGCAGTTCCCCAACCACTCATTCAAGCATGAGGATCCCATGGGCCAGCAGGGCTCGCTGGG
TGAGCAGCAGTACTCGGTGCCGCCCCCGGTCTATGGCTGCCACACCCCCACCGACAGCTGCACCGGCAGC
CAGGCTTTGCTGCTGAGGACGCCCTACAGCAGTGACAATTTATACCAAATGACATCCCAGCTTGAATGCA
TGACCTGGAATCAGATGAACTTAGGAGCCACCTTAAAGGGAGTTGCTGCTGGGAGCTCCAGCTCAGTGAA
ATGGACAGAAGGGCAGAGCAACCACAGCACAGGGTACGAGAGCGATAACCACACAACGCCCATCCTCTGC
GGAGCCCAATACAGAATACACACGCACGGTGTCTTCAGAGGCATTCAGGATGTGCGACGTGTGCCTGGAG
TAGCCCCGACTCTTGTACGGTCGGCATCTGAGACCAGTGAGAAACGCCCCTTCATGTGTGCTTACCCAGG
CTGCAATAAGAGATATTTTAAGCTGTCCCACTTACAGATGCACAGCAGGAAGCACACTGGTGAGAAACCA
TACCAGTGTGACTTCAAGGACTGTGAACGAAGGTTTTCTCGTTCAGACCCGCTCAAAAGACACCAAAGGA
GACATACAGGTGTGAAACCATTCCAGTGTAAAACTTGTCAGCGAAAGTTCTCCCGGTCCGACCACCTGAA
GACCCACACCAGGACTCATACAGGTAAAACAAGTGAAAAGCCCTTCAGCTGTCGGTGGCCAAGTTGTCAG
AAAAAGTTTGCCCGGTCAGATGAATTAGTCCGCCATCACAACATGCATCAGAGAAACATGACCAAACTCC
AGCTGGCGCTT

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence:

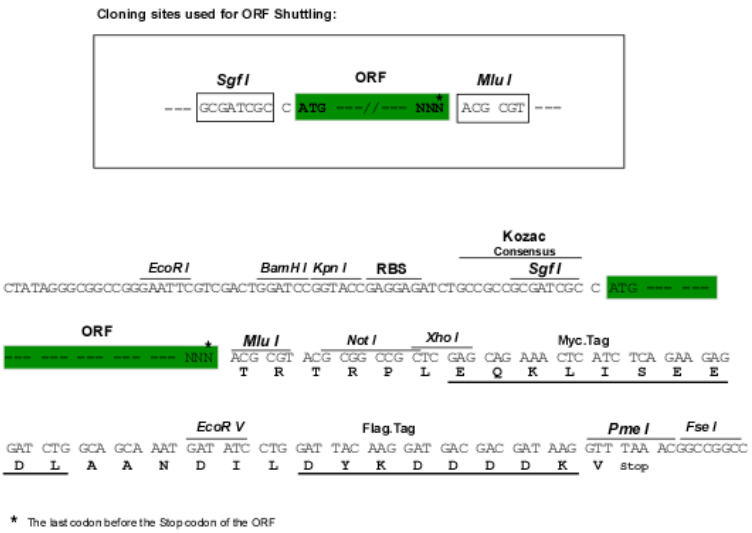
>RC403467 representing NM_024426
Red=Cloning site Green=Tags(s)

MQDPASTCVPEPASQHTLRSGPGCLQQPEQQGVRDPGGIWAKLGAAEASAERLQGRRSRGASGSEPQQMG
SDVRDLNALLPAVPSLGGGGGCALPVSGAAQWAPVLDFAPPGASAYGSLGGPAPPPAPPPPPPPPPHSFI
KQEPSWGGAEPHEEQCLSAFTVHFSGQFTGTAGACRYGPFGPPPPSQASSGQARMFPNAPYLPSCLESQP
AIRNQGYSTVTFDGTPSYGHTPSHHAAQFPNHSFKHEDPMGQQGSLGEQQYSVPPPVYGCHTPTDSCTGS
QALLLRTPYSSDNLYQMTSQLECMTWNQMNLGATLKGVAAGSSSSVKWTEGQSNHSTGYESDNHTTPILC
GAQYRIHTHGVFRGIQDVRRVPGVAPTLVRSASETSEKRPFMCAYPGCNKRYFKLSHLQMHSRKHTGEKP
YQCDFKDCERRFSRSDPLKRHQRRHTGVKPFQCKTCQRKFSRSDHLKTHTRTHTGKTSEKPFSCRWPSCQ
KKFARSDELVRHHNMHQRNMTKLQLAL

SGPTRTRRLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

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 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]