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Product datasheet for RC220079

Wilms Tumor Protein (WT1) (NM_000378) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Wilms Tumor Protein (WT1) (NM_000378) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Wilms Tumor Protein
Synonyms:	AWT1; GUD; NPHS4; WAGR; WIT-2; WT33
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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ORF Nucleotide Sequence:

>RC220079 representing NM_000378
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAGGACCCGGCTTCCACGTGTGTCCCGGAGCCGGCGTCTCAGCACACGCTCCGCTCCGGGCCTGGGT
GCCTACAGCAGCCAGAGCAGCAGGGAGTCCGGGACCCGGGCGGCATCTGGGCCAAGTTAGGCGCCGCCGA
GGCCAGCGCTGAACGTCTCCAGGGCCGGAGGAGCCGCGGGGCGTCCGGGTCTGAGCCGCAGCAAATGGGC
TCCGACGTGCGGGACCTGAACGCGCTGCTGCCCGCCGTCCCCTCCCTGGGTGGCGGCGGCGGCTGTGCCC
TGCCTGTGAGCGGCGCGGCGCAGTGGGCGCCGGTGCTGGACTTTGCGCCTCCGGGCGCTTCGGCTTACGG
GTCGTTGGGCGGCCCCGCGCCGCCACCGGCTCCGCCGCCACCCCCGCCGCCGCCGCCTCACTCCTTCATC
AAACAGGAGCCGAGCTGGGGCGGCGCGGAGCCGCACGAGGAGCAGTGCCTGAGCGCCTTCACTGTCCACT
TTTCCGGCCAGTTCACTGGCACAGCCGGAGCCTGTCGCTACGGGCCCTTCGGTCCTCCTCCGCCCAGCCA
GGCGTCATCCGGCCAGGCCAGGATGTTTCCTAACGCGCCCTACCTGCCCAGCTGCCTCGAGAGCCAGCCC
GCTATTCGCAATCAGGGTTACAGCACGGTCACCTTCGACGGGACGCCCAGCTACGGTCACACGCCCTCGC
ACCATGCGGCGCAGTTCCCCAACCACTCATTCAAGCATGAGGATCCCATGGGCCAGCAGGGCTCGCTGGG
TGAGCAGCAGTACTCGGTGCCGCCCCCGGTCTATGGCTGCCACACCCCCACCGACAGCTGCACCGGCAGC
CAGGCTTTGCTGCTGAGGACGCCCTACAGCAGTGACAATTTATACCAAATGACATCCCAGCTTGAATGCA
TGACCTGGAATCAGATGAACTTAGGAGCCACCTTAAAGGGCCACAGCACAGGGTACGAGAGCGATAACCA
CACAACGCCCATCCTCTGCGGAGCCCAATACAGAATACACACGCACGGTGTCTTCAGAGGCATTCAGGAT
GTGCGGCGTGTGCCTGGAGTAGCCCCGACTCTTGTACGGTCGGCATCTGAGACCAGTGAGAAACGCCCCT
TCATGTGTGCTTACCCAGGCTGCAATAAGAGATATTTTAAGCTGTCCCACTTACAGATGCACAGCAGGAA
GCACACTGGTGAGAAACCATACCAGTGTGACTTCAAGGACTGTGAACGAAGGTTTTCTCGTTCAGACCAG
CTCAAAAGACACCAAAGGAGACATACAGGTGTGAAACCATTCCAGTGTAAAACTTGTCAGCGAAAGTTCT
CCCGGTCCGACCACCTGAAGACCCACACCAGGACTCATACAGGTGAAAAGCCCTTCAGCTGTCGGTGGCC
AAGTTGTCAGAAAAAGTTTGCCCGGTCAGATGAATTAGTCCGCCATCACAACATGCATCAGAGAAACATG
ACCAAACTCCAGCTGGCGCTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220079 representing NM_000378
Red=Cloning site Green=Tags(s)

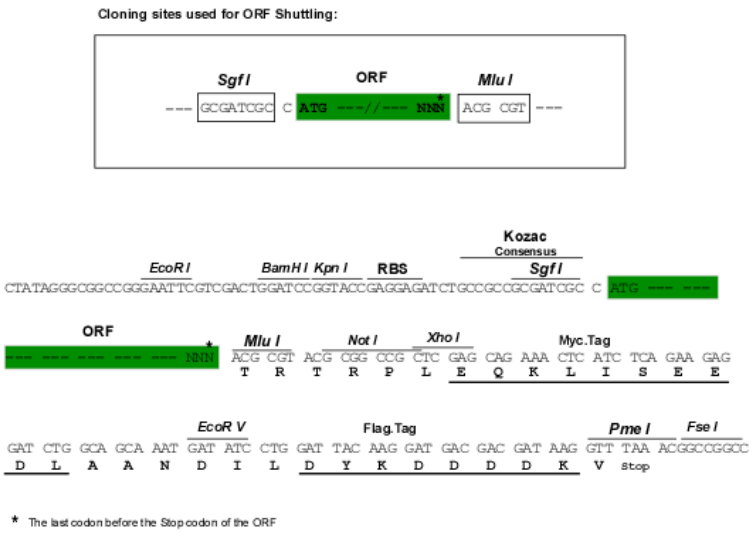
MQDPASTCVPEPASQHTLRSGPGCLQQPEQQGVRDPGGIWAKLGAAEASAERLQGRRSRGASGSEPQQMG
SDVRDLNALLPAVPSLGGGGGCALPVSGAAQWAPVLDFAPPGASAYGSLGGPAPPPAPPPPPPPPPHSFI
KQEPSWGGAEPHEEQCLSAFTVHFSGQFTGTAGACRYGPFGPPPPSQASSGQARMFPNAPYLPSCLESQP
AIRNQGYSTVTFDGTPSYGHTPSHHAAQFPNHSFKHEDPMGQQGSLGEQQYSVPPPVYGCHTPTDSCTGS
QALLLRTPYSSDNLYQMTSQLECMTWNQMNLGATLKGHSTGYESDNHTTPILCGAQYRIHTHGVFRGIQD
VRRVPGVAPTLVRSASETSEKRPFMCAYPGCNKRYFKLSHLQMHSRKHTGEKPYQCDFKDCERRFSRSDQ
LKRHQRRHTGVKPFQCKTCQRKFSRSDHLKTHTRTHTGEKPFSCRWPSCQKKFARSDELVRHHNMHQRNM
TKLQLAL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg3973_a05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000378

ORF Size: 1491 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).

Reconstitution Method:
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: NM_000378.6

RefSeq Size: 2977 bp

RefSeq ORF: 1509 bp

Locus ID: 7490

UniProt ID: P19544

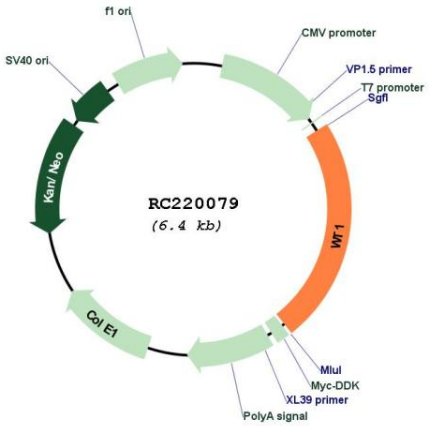
Cytogenetics: 11p13

Protein Families: Druggable Genome, Transcription Factors

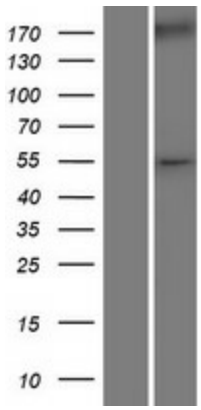
MW: 54.3 kDa

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]

Product images:



Circular map for RC220079



Western blot validation of overexpression lysate (Cat# [LY424762]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220079 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).