

Product datasheet for SC305117

OriGene Technologies, Inc.

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Wilms Tumor Protein (WT1) (NM_024425) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Wilms Tumor Protein (WT1) (NM_024425) Human Untagged Clone

Tag: Tag Free

Symbol: Wilms Tumor Protein

Synonyms: AWT1; GUD; WAGR; Wilms tumor 1; WIT-2; WT33

Mammalian Cell

Selection:

None

Vector: pCMV6-XL4

E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene ORF sequence for NM_024425 edited

CTGCAGGACCCGGCTTCCACGTGTGTCCCGGAGCCGGCGTCTCAGCACACGCTCCGCTCC GGGCCTGGGTGCCTACAGCAGCCAGAGCAGCAGGGAGTCCGGGACCCGGGCGGCATCTGG GCCAAGTTAGGCGCCGCGAGGCCAGCGCTGAACGTCTCCAGGGCCGGAGGAGCCGCGGG GCGTCCGGGTCTGAGCCGCAGCAAATGGGCTCCGACGTGCGGGACCTGAACGCGCTGCTG CCCGCCGTCCCTCCCTGGGTGGCGGCGGCGGCTGTGCCTGCCTGTGAGCGGCGCGCG CAGTGGGCGCCGGTGCTGGACTTTGCGCCTCCGGGCGCTTCGGCTTACGGGTCGTTGGGC GGCCCGCGCCGCCACCGGCCGCCGCCGCCGCCGCCGCCTCACTCCTTCATC AAACAGGAGCCGAGCTGGGGCGCGCGGAGCCGCACGAGGAGCAGTGCCTGAGCGCCTTC ACTGTCCACTTTTCCGGCCAGTTCACTGGCACAGCCGGAGCCTGTCGCTACGGGCCCTTC GGTCCTCCTCCGCCCAGCCAGGCGTCATCCGGCCAGGCCAGGATGTTTCCTAACGCGCCC TACCTGCCCAGCTGCCTCGAGAGCCAGCCCGCTATTCGCAATCAGGGTTACAGCACGGTC ACCTTCGACGGGACGCCCAGCTACGGTCACACGCCCTCGCACCATGCGGCGCAGTTCCCC AACCACTCATTCAAGCATGAGGATCCCATGGGCCAGCAGGGCTCGCTGGGTGAGCAGCAG TACTCGGTGCCGCCCCGGTCTATGGCTGCCACACCCCCACCGACAGCTGCACCGGCAGC CAGGCTTTGCTGCTGAGGACGCCCTACAGCAGTGACAATTTATACCAAATGACATCCCAG CTTGAATGCATGACCTGGAATCAGATGAACTTAGGAGCCACCTTAAAGGGCCACAGCACA GGGTACGAGAGCGATAACCACACACGCCCATCCTCTGCGGAGCCCAATACAGAATACAC ACGCACGGTGTCTTCAGAGGCATTCAGGATGTGCGGCGTGTGCCTGGAGTAGCCCCGACT CTTGTACGGTCGGCATCTGAGACCAGTGAGAAACGCCCCTTCATGTGTGCTTACCCAGGC TGCAATAAGAGATATTTTAAGCTGTCCCACTTACAGATGCACAGCAGGAAGCACACTGGT GAGAAACCATACCAGTGTGACTTCAAGGACTGTGAACGAAGGTTTTCTCGTTCAGACCAG CTCAAAAGACACCAAAGGAGACATACAGGTGTGAAACCATTCCAGTGTAAAACTTGTCAG CGAAAGTTCTCCCGGTCCGACCACCTGAAGACCCACACCAGGACTCATACAGGTAAAACA AGTGAAAAGCCCTTCAGCTGTCGGTGGCCAAGTTGTCAGAAAAAGTTTGCCCGGTCAGAT GAATTAGTCCGCCATCACAACATGCATCAGAGAAACATGACCAAACTCCAGCTGGCGCTT TGA

Wilms Tumor Protein (WT1) (NM_024425) Human Untagged Clone - SC305117

Restriction Sites: Please inquire

ACCN: NM_024425

Insert Size: 3000 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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.

RefSeq: <u>NM 024425.2</u>, <u>NP 077743.2</u>

RefSeq Size: 2978 bp
RefSeq ORF: 1503 bp
Locus ID: 7490
Cytogenetics: 11p13

Protein Families: Druggable Genome, Transcription Factors

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]

Transcript Variant: This variant (C) lacks exon 5 but contains the additional sequence (encoding KTS) at the end of exon 9. It maintains the same reading frame and encodes an isoform (C) that is 17 aa shorter than the longest WT1 isoform (D). This variant initiates translation from a non-AUG (CUG) site, and also from a downstream, in-frame AUG.