

Active Recombinant Human WT1, Flag-tagged

Cat. No. WT1-1199H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	The N-terminal Flag-tagged WT-1 protein (residue 1-446, including exon 5 but without KTS) was expressed in a baculovirus system and purified by affinity and FPLC chromatography.
Species	Human
Source	Insect Cells
ProteinLength	1-446 a.a.
Description	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 Wilm's tumors. 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 site 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.
Bio-activity	1 unit equals 1 nanogram of protein. 2-10 units are sufficient for a gel mobility shift assay in a 20µreaction. 50-200 units are required for a reconstituted transcription

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assay and 100 units are sufficient for a protein-protein interaction assay.

Molecular Mass	55.7 kDa.
Purity	Purified protein is greater than 95% homogeneous based on SDS-PAGE analysis.
Applications	Recombinant WT-1 protein can be used for: 1) in vitro function studies including transcription, DNA or RNA binding assays; 2) protein-protein interaction assay; and 3) cell growth and proliferation assays.
Storage Buffer	20 mM Tris-Cl (pH 8.0), 20% Glycerol, 100 mM KCl, 1 mM DTT and 0.2 mM EDTA

GENE INFORMATION

Gene Name	WT1 Wilms tumor 1 [Homo sapiens (human)]
Official Symbol	WT1
Synonyms	WT1; GUD; AWT1; WAGR; WT33; NPHS4; WIT-2; EWS-WT1; Wilms tumor 1; Wilms tumor protein; amino-terminal domain of EWS last three zinc fingers of the DNA-binding domain of WT1
Gene ID	7490
mRNA Refseq	NM_000378
Protein Refseq	NP_000369
MIM	607102
UniProt ID	P19544

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Chromosome Location	11p13
Pathway	Integrated Pancreatic Cancer Pathway; Regulation of Telomerase; Transcriptional misregulation in cancer
Function	C2H2 zinc finger domain binding; RNA binding; RNA polymerase II core promoter proximal region sequence-specific DNA binding transcription factor activity involved in positive regulation of transcription

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