

## WT-1 (- KTS)

The Wilms' Tumor Suppressor and Transcription/Pre-mRNA Splicing Factor  
human, recombinant, Sf9 insect cells

Cat. No.	Amount
PR-767	5 µg



For *in vitro* use only  
Quality guaranteed for 12 months  
Store at -80°C

### Avoid freeze / thaw cycles

### Form

Liquid. Supplied in 20 mM Tris-HCl pH 8.0, 100 mM KCl, 0.2 mM EDTA, 1 mM DTT and 20% glycerol.

### Activity

10 ng is sufficient for a gel mobility shift assay in a 20 µl reaction, 50-200 ng are sufficient for reconstituted transcription assays and 100 ng are sufficient for a protein-protein interaction assay.

### Application

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.

### Molecular Weight

55 kDa

### Purity

> 95% by SDS-PAGE

### Description

WT-1, the product of Wilms' Tumor suppressor gene *Wt1*, is a nuclear protein with structural motifs characteristic of transcription factors, including four C-terminal zinc fingers. While different pre-mRNA processing could result in 16 isoforms of the protein, inclusion or exclusion of exon 5 and the three amino acids (KTS) between zinc fingers 3 and 4 largely affects the activity of WT-1 protein. Such a complex posttranscriptional regulation, particularly in splicing, may represent a major regulatory mechanism for tumorigenesis of the Wilms' tumor. WT1 (-KTS) appears to have different binding affinity to both DNA and RNA comparing to the +KTS form.

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.

### Selected References:

- Haber *et al.* (1991) Alternative splicing and genomic structure of the Wilms tumor gene *WT1*. *Proc. Natl. Acad. Sci. USA* **88**:9618.  
Haber *et al.* (1993) WT1-mediated growth suppression of Wilms tumor cells expressing a WT1 splicing variant. *Science* **262**:2057.  
Kreidberg *et al.* (1993) WT-1 is required for early kidney development. *Cell* **74**:679.  
Larsson *et al.* (1995) Subnuclear localization of WT1 in splicing or transcription factor domains is regulated by alternative splicing. *Cell* **81**:391.  
Little *et al.* (1997) A clinical overview of WT1 gene mutations. *Hum. Mutat.* **9**:209.  
Englert *et al.* (1995) WT1 suppresses synthesis of the epidermal growth factor receptor and induces apoptosis. *EMBO J.* **14**:4662.