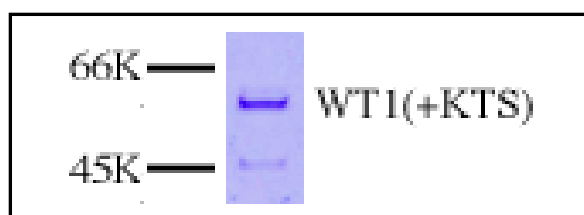


WT-1 (+ KTS)

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

Cat. No.	Amount
PR-766	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

1 ng is the amount sufficient for a gel mobility shift assay in a 20 µl reaction, 50 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, the inclusion or exclusion of exon 5 and three amino acids (KTS) between zinc fingers 3 and 4 largely affects the activity of the WT-1 protein. Such a complex posttranscriptional regulation, particularly in splicing, may represent a major regulatory mechanism for tumorigenesis of the Wilms' tumor. With the inclusion of exon 5, WT-1 (+KTS) binds to both DNA and RNA and is RNase but not DNase sensitive. This form also colocalizes with splicing factor in a speckled nuclear particle, suggesting that WT-1 protein may function as both a transcription factor and a splicing regulator. The WT-1 protein (residue 1-449, including exon 5 and KTS) is expressed in baculovirus system and purified by an affinity column in combination with 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.
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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.
Caricasole *et al.* (1996) RNA binding by the Wilms tumor suppressor zinc finger proteins. *Proc. Natl. Acad. Sci. USA* **93**:7562.
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.