

# Human WTAP Protein (GST Tag)

Catalog Number: 12018-H09E



**Sino Biological Inc.**

Biological Solution Specialist

## General Information

### Gene Name Synonym:

Mum2; 2810408K05Rik; 9430038B09Rik

### Protein Construction:

A DNA sequence encoding the human WTAP isoform 2 (Q15007-2) (Met 1-Arg 151) was fused with the GST tag at the N-terminus.

**Source:** Human

**Expression Host:** E. coli

## QC Testing

**Purity:** > 90 % as determined by SDS-PAGE

### Endotoxin:

Please contact us for more information.

### Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

**Predicted N terminal:** Met

### Molecular Mass:

The recombinant human WTAP/GST chimera consists of 386 amino acids and migrates as an approximately 45 kDa band as predicted in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile 20mM Tris, 0.15M NaCl, 0.5mM GSH, pH 8.0

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Storage:

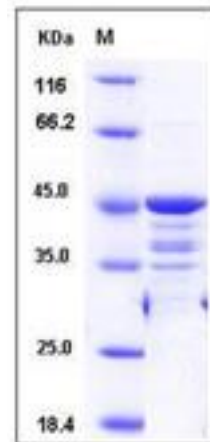
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

Wilms' tumor 1-associating protein (WTAP) was previously identified as a protein associated with Wilms' tumor-1 (WT-1) protein that is essential for the development of the genitourinary system. WT1 was originally identified as a tumor suppressor for Wilms' tumor, but it is also overexpressed in a variety of cancer cells. The WTAP-WT1 axis in vascular cells suggest that WTAP is a vital and multifaceted regulator of vascular remodeling. WTAP has been suggested to function in alternative splicing, stabilization of mRNA, and cell growth. Knocking down endogenous WTAP increased Smooth muscle cells (SMCs) proliferation, because of increased DNA synthesis and G(1)/S phase transition, together with reduced apoptosis. These effects could be the result of WTAP suppressing the transcriptional activity of WT1 in SMCs. WTAP may thus also play a role in messenger RNA processing in mammalian cells, either dependent on or independent of its interaction with WT1.

## References

- 1.Fukusumi Y, *et al.* (2008) Wtap is required for differentiation of endoderm and mesoderm in the mouse embryo. *Dev Dyn.* 237(3): 618-29.
- 2.Small TW, *et al.* (2007) Vascular biology and the sex of flies: regulation of vascular smooth muscle cell proliferation by wilms' tumor 1-associating protein. *Trends Cardiovasc Med.* 17(7): 230-4.
- 3.Small TW, *et al.* (2006) Wilms' tumor 1-associating protein regulates the proliferation of vascular smooth muscle cells. *Circ Res.* 99(12): 1338-46.

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