

# Human WWP2 Protein (His & GST Tag)

Catalog Number: 13125-H20B



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

AIP2; WWp2-like

### Protein Construction:

A DNA sequence encoding the human WWP2 (O00308) (Met1-Glu870) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

**Source:** Human

**Expression Host:** Baculovirus-Insect Cells

## QC Testing

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

### Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

### 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 WWP2 /GST chimera consists of 1107 amino acids and has a calculated molecular mass of 126.7 kDa. The recombinant protein migrates as an approximately 120 kDa band in SDS-PAGE under reducing conditions.

### Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 8.0, 10% glycerol

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:

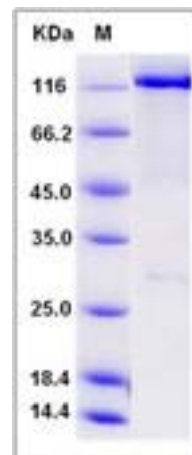
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**Avoid repeated freeze-thaw cycles.**

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

## SDS-PAGE:



## Protein Description

WWP2 contains 1 C2 domain, 1 HECT (E6AP-type E3 ubiquitin-protein ligase) domain and 4 WW domains. It is an E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. WWP2 can be detected in heart, throughout the brain, placenta, lung, liver, muscle, kidney and pancreas. It is also expressed in spleen and peripheral blood leukocytes. WWP2 polyubiquitinates POU5F1 by 'Lys-63'-linked conjugation and promotes it to proteasomal degradation; in embryonic stem cells (ESCs) the ubiquitination is proposed to regulate POU5F1 protein level. WWP2 ubiquitinates EGR2 and promotes it to proteasomal degradation; in T-cells the ubiquitination inhibits activation-induced cell death. It also ubiquitinates SLC11A2; the ubiquitination is enhanced by presence of NDFIP1 and NDFIP2. WWP2 ubiquitinates RPB1 and promotes it to proteasomal degradation.

## References

1. McDonald FJ, *et al.* (2002) Ubiquitin-protein ligase WWP2 binds to and downregulates the epithelial Na(+) channel. *Am J Physiol Renal Physiol.* 283 (3): F431-6.
2. Soond SM, *et al.* (2011) Selective targeting of activating and inhibitory Smads by distinct WWP2 ubiquitin ligase isoforms differentially modulates TGFβ signalling and EMT. *Oncogene.* 30 (21): 2451-62.
3. Marcucci R, *et al.* (2011) Pin1 and WWP2 regulate GluR2 Q/R site RNA editing by ADAR2 with opposing effects. *EMBO J.* 30 (20): 4211-22.

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