

## Recombinant Human PPM1A protein (His Tag)

**Catalog Number:** PDEH101083

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

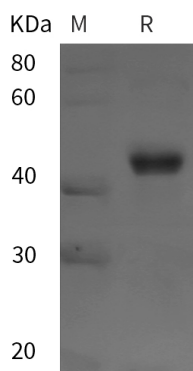
### Description

<b>Species</b>	Human
<b>Source</b>	E.coli-derived Human PPM1A protein Gly2-Trp382, with an N-terminal His
<b>Calculated MW</b>	41.8 kDa
<b>Observed MW</b>	45 kDa
<b>Accession</b>	P35813
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 10 EU/mg of the protein as determined by the LAL method
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

Protein Phosphatase 1A (PPM1A) is a member of the PP2C family of Ser/Thr protein phosphatases which are known to be negative regulators of cell stress response pathways. PPM1A has a broad specificity. PPM1A negatively regulates the activities of MAP kinases and MAP kinase kinases. Also, it negatively regulates TGF-beta signaling through dephosphorylating SMAD2 and SMAD3, resulting in their dissociation from SMAD4, nuclear export of the SMADs and termination of the TGF-beta-mediated signaling. In addition, PPM1A can dephosphorylate cyclin-dependent kinases, and thus may be involved in cell cycle control.

### For Research Use Only