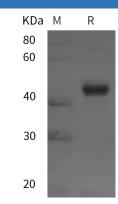
## Recombinant Human PPM1A protein (His Tag)

## Catalog Number: PDEH101083

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

Description	
Species	Human
Source	E.coli-derived Human PPM1A protein Gly2-Trp382, with an N-terminal His
Calculated MW	41.8 kDa
Observed MW	45 kDa
Accession	P35813
<b>Bio-activity</b>	Not validated for activity
Properties	
Purity	>95% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg of the protein as determined by the LAL method
Storage	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 $< -20^{\circ}$ C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with 5% Trehalose and 5%
	Mannitol.
Reconstitution	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.
	-



> 95 % as determined by reducing SDS-PAGE.

## Background

Data

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.

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