Recombinant Human PPM1A Protein (His Tag)

Catalog No. PKSH030763

**Description**

**Synonyms**
PP2C-ALPHA;PP2CA;PP2Calpha

**Species**
Human

**Expression_host**
E.coli

**Sequence**
Met 1-Trp 382

**Accession**
P35813-1

**Mol_Mass**
43.8 kDa

**AP_Mol_Mass**
47 kDa

**Tag**
C-His

**Properties**

**Purity**
> 85 % as determined by reducing SDS-PAGE.

**Endotoxin**
Please contact us for more information.

**Storage**
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.

**Shipping**
This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation**
Lyophilized from sterile PBS, 10% glycerol, pH 7.5

**Reconstitution**
Please refer to the printed manual for detailed information.

**Background**

Protein phosphatase 1A (PPM1A / PP2CA) is an enzyme belonging to the PP2C family of Ser / Thr protein phosphatases. Members of PP2C family are negative regulators of cell stress response pathways and the MAP kinases and MAP kinase kinases. It has also been demonstrated to inhibit the activation of p38 and JNK kinase cascades. PPM1A dephosphorylates and promotes nuclear export of TGFβ-activated Smad2/3. Ectopic expression of PPM1A abolishes TGFβ-induced antiproliferative and transcriptional responses, whereas depletion of PPM1A enhances TGFβ signaling in mammalian cells. It has been demonstrated that PPM1A / PP2CA, through dephosphorylation of Smad2/3, plays a critical role in terminating TGFβ signaling. Overexpression of PPM1A is reported to activate the expression of the tumor suppressor gene TP53 / p53, which leads to cell apoptosis.
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