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**Recombinant Mouse PPM1A / PP2CA / PP2C-alpha Protein (His tag)****Cat.NO.: TP07828**

3th Edition

**Synonyms:**2310003C21Rik;2900017D14Rik;AI427932;AU017636;MMPa-2;MPPa-1

**Description:**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 TGF $\beta$ -activated Smad2/3. Ectopic expression of PPM1A abolishes TGF $\beta$ -induced antiproliferative and transcriptional responses, whereas depletion of PPM1A enhances TGF $\beta$  signaling in mammalian cells. It has been demonstrated that PPM1A / PP2CA, through dephosphorylation of Smad2/3, plays a critical role in terminating TGF $\beta$  signaling. Overexpression of PPM1A is reported to activate the expression of the tumor suppressor gene TP53 / p53, which leads to cell apoptosis.

**Form:**PBS**Molecular Weight:**43.3 kDa**Sequences:**Met 1-Trp 382**Purity:**> 95% by HPLC**Concentration:****Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)

**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.