Recombinant Mouse PPM1A Protein (His Tag)

Catalog Number: PKSM040761

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

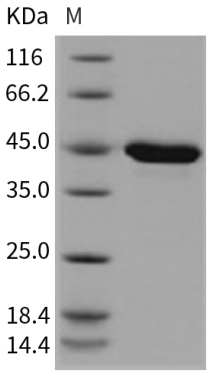
Description

Species	Mouse
Source	E.coli-derived Mouse PPM1A protein Met 1-Trp 382, with an C-terminal His
Calculated MW	43.3 kDa
Observed MW	43.3 kDa
Accession	NP_032936.1
Bio-activity	Not validated for activity

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 10mM HEPES, 500 NaCl, pH 7.5 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 98 % as determined by reducing SDS-PAGE.

Background

Protein phosphatase 1A (PPM1A / PP2CA) is an enzyme belonging to the PP2C family of Ser / Thr protein phosphatase s. 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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