

[KD Validated] Anti-PPM1G Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

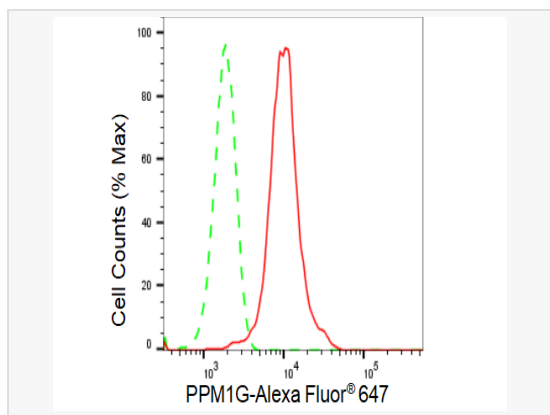
Catalog # R021566

Product Information

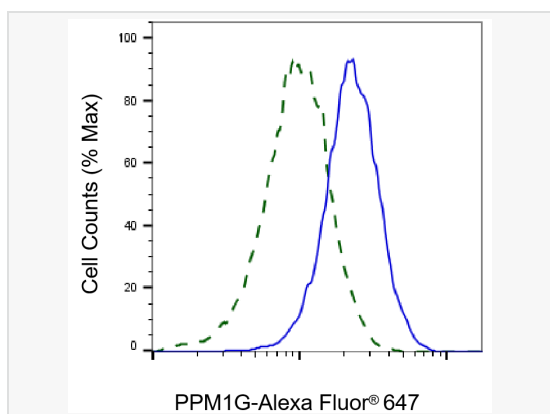
Application	WB, FC, IF (Cell)/ICC, IHC-P/IF (Tissue-P)
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000; IHC-P 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	35N56Q21
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human PPM1G
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-PPM1G Rabbit mAb [35N56Q21] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

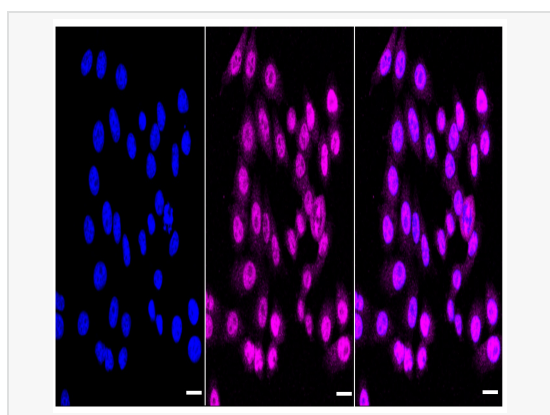
Synonyms	PPM1G; Protein Phosphatase, Mg ²⁺ /Mn ²⁺ Dependent 1G; PP2CG; Protein Phosphatase Magnesium-Dependent 1 Gamma; Protein Phosphatase 1G ; Protein Phosphatase 1C; EC 3.1.3.16; PP2C-Gamma; PP2CGAMMA; Protein Phosphatase 1G (Formerly 2C), Magnesium-Dependent, Gamma Isoform; Protein Phosphatase, Mg ²⁺ /Mn ²⁺ Dependent, 1G; Protein Phosphatase 2C, Gamma Isoform; Protein Phosphatase 2C Isoform Gamma; PP2C, Gamma; PP2Cgamma; PPP2CG; PPM1C.
Calculated MW	Calculated MW: 59 kDa, Observed MW: 72 kDa
Uniprot ID	O15355
Gene ID	5496
Background	The protein encoded by this gene is a member of the PP2C family of Ser/Thr protein phosphatases. PP2C family members are known to be negative regulators of cell stress response pathways. This phosphatase is found to be responsible for the dephosphorylation of Pre-mRNA splicing factors, which is important for the formation of functional spliceosome. Studies of a similar gene in mice suggested a role of this phosphatase in regulating cell cycle progression.



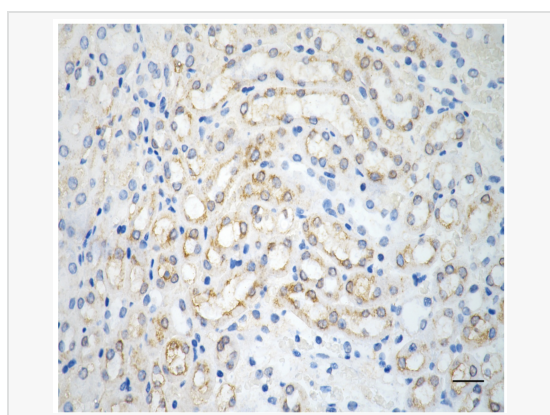
Flow cytometric analysis of PPM1G expression in HepG2 cells using PPM1G antibody (R021566, 1:2,000). Green, isotype control; red, PPM1G.



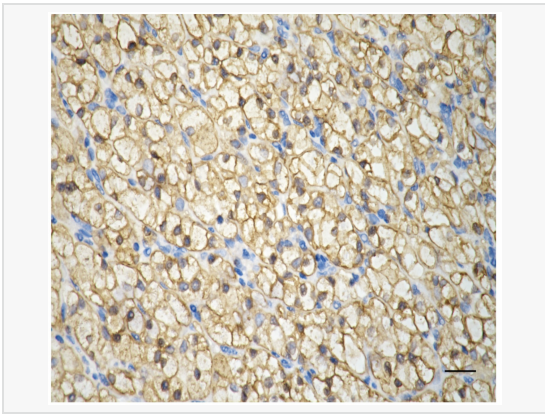
Validation of PPM1G knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with PPM1G antibody (R021566, 1:2,000) and analyzed using BD flow cytometer.



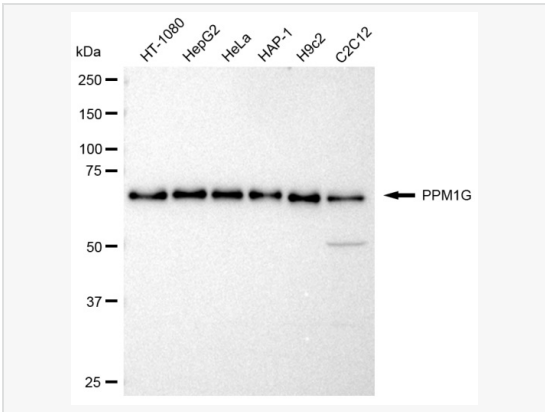
Immunocytochemical staining of HepG2 cells with PPM1G antibody (R021566, 1:1,000). Nuclei were stained blue with DAPI; PPM1G was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: High. Scale bar: 20 µm.



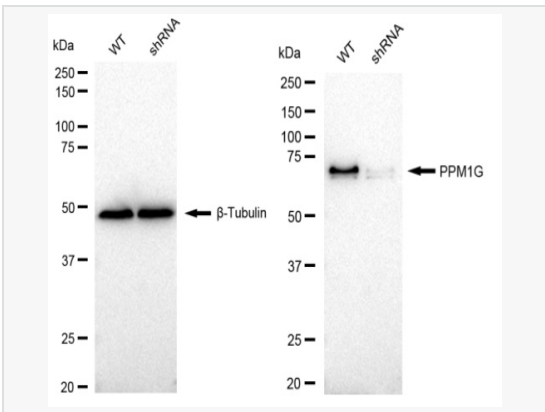
Immunohistochemistry was performed on paraffin-embedded mouse kidney using PPM1G antibody (R021566, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunohistochemistry was performed on paraffin-embedded human renal carcinoma using PPM1G antibody (R021566, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 μm.



Western blotting analysis using PPM1G antibody (R021566). Total cell lysates (30 μg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with PPM1G antibody (R021566, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using PPM1G antibody (R021566). PPM1G expression in wild type (WT) and PPM1G shRNA knockdown (KD) HeLa cells with 30 μg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with PPM1G antibody (R021566, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.