SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
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[Primary Antibody]

Rabbit Anti-PPM1D antibody

Catalog Number: SL22939R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	PPM1D
Immunogen:	KLH conjugated synthetic peptide derived from human PPM1D: 471-570/605
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	IHC-P=1:400-800 IHC-F=1:400-800 IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse,Rat
Predicted MW.:	67kDa
Subcellular Location:	The nucleus
Background:	PPM1D (Wip) is a serine/threonine phosphatase implicated in cell cycle control, spermatogenesis, and lymphoid cell function. The predicted 605-amino acid PPM1D protein contains 2 putative nuclear localization signals and 3 regions conserved in serine/threonine PP2C phosphatases, as well as characteristics of a type 2C phosphatase, including magnesium dependence and relative insensitivity to okadaic acid. PPM1D expression is induced in response to ionizing radiation in a p53-dependent manner. The accumulation of PPM1D mRNA following ionizing radiation is rapid and transient, and PPM1D protein is localized to the nucleus. PPM1D may contribute to growth inhibitory pathways activated in response to DNA damage in a p53-dependent manner. PPM1D inhibits phosphorylation of the p38 mitogen-activated (MAP)kinase protein. Through p38 MAPK, PPM1D modulates the CDKN2A tumor-suppressor

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	locus. This gene is located in a chromosomal region known to be amplified in breast cancer, (located at 17q22-q23), is amplified in human breast tumor cell lines and in approximately 11% of primary breast tumors, and appears to lead to cell transformation by abrogating p53 tumor suppressor activity. Inactivation of the p38 MAPK through PPM1D overexpression resulting from PPM1D amplification may contributes to the development of human cancers by suppressing p53 activation. PPM1D null mice have increased susceptibility to pathogens and reduced male fertility and longevity. **Function:** Required for the relief of p53-dependent checkpoint mediated cell cycle arrest. Binds to and dephosphorylates 'Ser-15' of TP53 and 'Ser-345' of CHEK1 which contributes to the functional inactivation of these proteins. **Subunit:** Interacts with CHEK1 and CHEK2; dephosphorylates them. **Similarity:** Belongs to the PP2C family. Contains 1 PP2C-like domain. **Database links:** **Entrez Gene:** 8493 Human **Entrez Gene:** 53892 Mouse **Entrez Gene:** 380383 Xenopus laevis **Entrez Gene:** 394065 Zebrafish Omim: 605100 Human **SwissProt:** O15297 Human **SwissProt:** Q5RI25 Mouse **SwissProt:** Q9QZ67 Mouse **Unigene:** 286073 Human **Unigene:** 45609 Mouse

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[VALIDATION IMAGES]

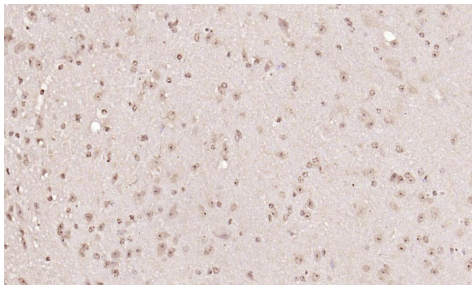


Figure 1. Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PPM1D) Polyclonal Antibody, Unconjugated (SL22939R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

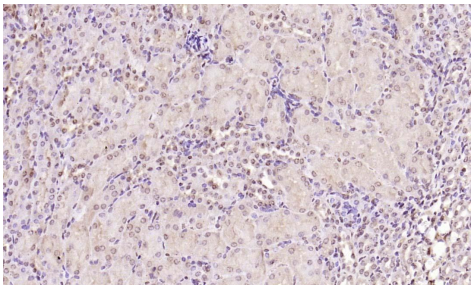


Figure 2. Paraformaldehyde-fixed, paraffin embedded (mouse kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PPM1D) Polyclonal Antibody, Unconjugated (SL22939R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

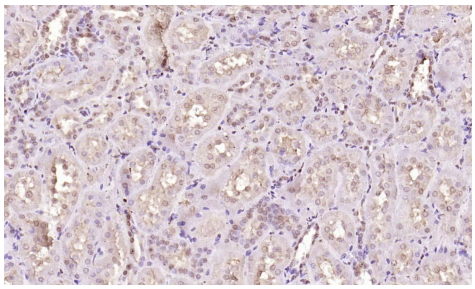


Figure 3. Paraformaldehyde-fixed, paraffin embedded (rat kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PPM1D) Polyclonal Antibody, Unconjugated (SL22939R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

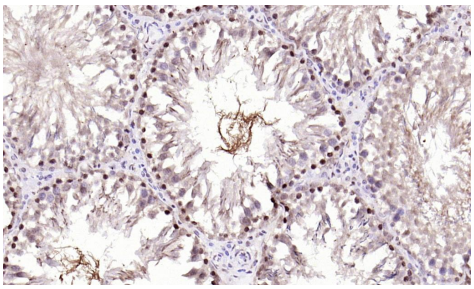


Figure 4. Paraformaldehyde-fixed, paraffin embedded (rat testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PPM1D) Polyclonal Antibody, Unconjugated (SL22939R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

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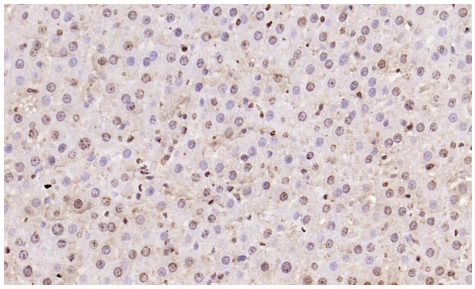


Figure 5. Paraformaldehyde-fixed, paraffin embedded (rat liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PPM1D) Polyclonal Antibody, Unconjugated (SL22939R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

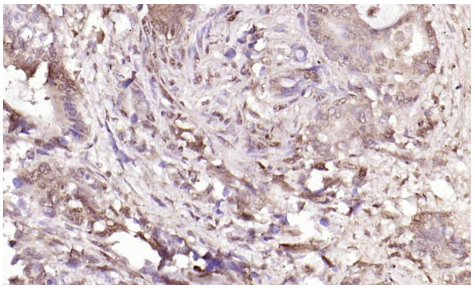


Figure 6. Paraformaldehyde-fixed, paraffin embedded (human rectal carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PPM1D) Polyclonal Antibody, Unconjugated (SL22939R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

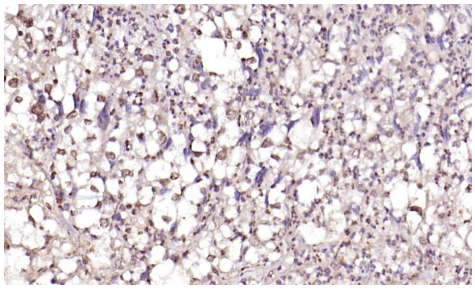


Figure 7. Paraformaldehyde-fixed, paraffin embedded (human endometrial carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PPM1D) Polyclonal Antibody, Unconjugated (SL22939R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

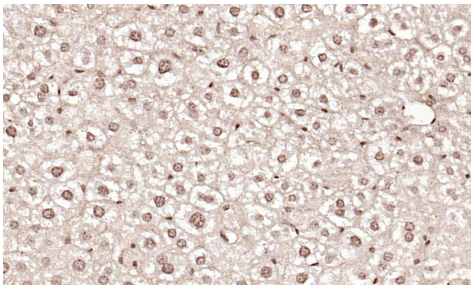


Figure 8. Paraformaldehyde-fixed, paraffin embedded (mouse liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PPM1D) Polyclonal Antibody, Unconjugated (SL22939R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

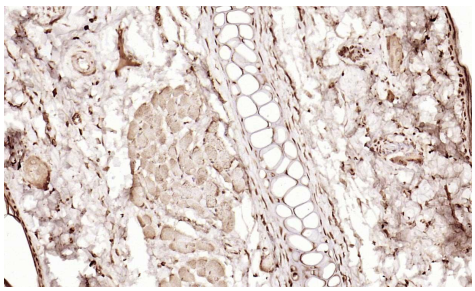


Figure 9. Paraformaldehyde-fixed, paraffin embedded (rat skin); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PPM1D) Polyclonal Antibody, Unconjugated (SL22939R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

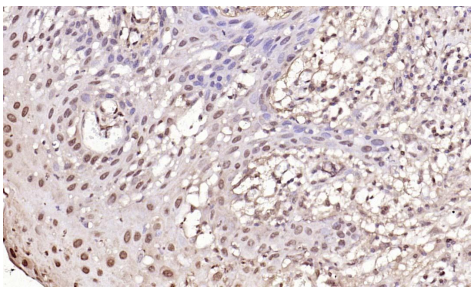


Figure 10. Paraformaldehyde-fixed, paraffin embedded (human laryngeal carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PPM1D) Polyclonal Antibody, Unconjugated (SL22939R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

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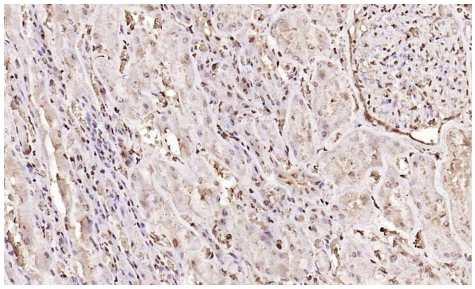


Figure 11. Paraformaldehyde-fixed, paraffin embedded (Human kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PPM1D) Polyclonal Antibody, Unconjugated (SL22939R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

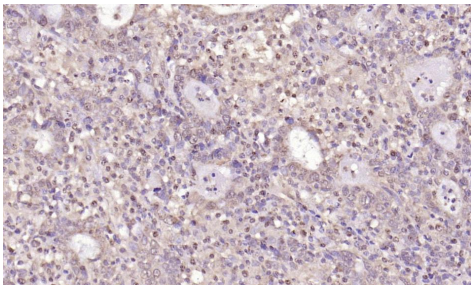


Figure 12. Paraformaldehyde-fixed, paraffin embedded (human gastric carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (PPM1D) Polyclonal Antibody, Unconjugated (SL22939R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

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