

#### DESCRIPTION

|                           |   |
|---------------------------|---|
| <b>Species Reactivity</b> | Human   |
| <b>Specificity</b>        | Detects human PPM1D in direct ELISAs.   |
| <b>Source</b>             | Polyclonal Sheep IgG  |
| <b>Purification</b>       | Antigen Affinity-purified   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human PPM1D<br>Ser400-Cys605<br>Accession # O15297  |
| <b>Formulation</b>        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS. |

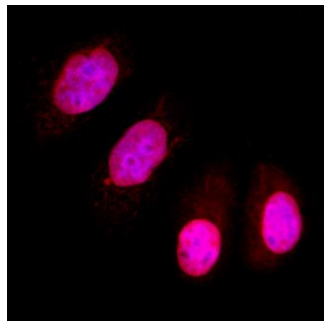
#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

|                             | <b>Recommended Concentration</b> | <b>Sample</b> |
|-----------------------------|----------------------------------|---------------|
| <b>Immunocytochemistry</b>  | 1-15 µg/mL                       | See Below     |
| <b>Immunohistochemistry</b> | 3-15 µg/mL                       | See Below     |

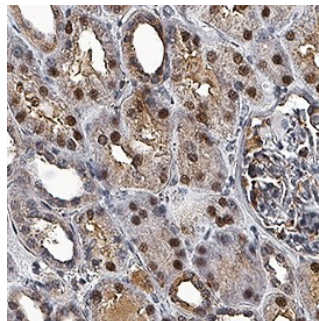
#### DATA

##### Immunocytochemistry



**PPM1D in MCF-7 Human Cell Line.** PPM1D was detected in immersion fixed MCF-7 human breast cancer cell line using Sheep Anti-Human PPM1D Antigen Affinity-purified Polyclonal Antibody (Catalog # AF10120) at 1.7 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

##### Immunohistochemistry



**PPM1D in Human Kidney.** PPM1D was detected in immersion fixed paraffin-embedded sections of human kidney using Sheep Anti-Human PPM1D Antigen Affinity-purified Polyclonal Antibody (Catalog # AF10120) at 3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Sheep IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC006). Before incubation with the primary antibody, tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to nuclei. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

#### PREPARATION AND STORAGE

|                                |  |
|--------------------------------|--|
| <b>Reconstitution</b>          | Reconstitute at 0.2 mg/mL in sterile PBS. For liquid material, refer to CoA for concentration.   |
| <b>Shipping</b>                | Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.   |
| <b>Stability &amp; Storage</b> | <b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul> |

#### BACKGROUND

Protein phosphatase 1D, or Wild-type p53-induced phosphatase 1 (WIP-1), is an enzyme encoded by the PPM1D gene. WIP-1 is involved in the negative regulation of p53 expression. WIP1 Phosphatase has been shown to be overexpressed or amplified in human cancers including breast and ovarian cancers, and has been described as a potential therapeutic target in Neuroblastoma; GSK 2830371 is a potent and selective allosteric inhibitor of Wip1 phosphatase (Tocris Cat. 5140).