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**[ Marker Primary Antibody ]**

# Rabbit Anti-PP1A/AF647 Conjugated antibody

**Catalog Number: SL3756R-AF647**

**FOR RESEARCH USE ONLY**

**[ DATASHEET ]**

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| **Host:** | Rabbit |
| **Isotype:** | IgG |
| **Clonality:** | Polyclonal |
| **Target:** | Anti-PP1A/AF647 |
| **Immunogen:** | KLH conjugated synthetic peptide derived from human PP1A/PP2CA(287-347aa) |
| **Purification:** | affinity purified by Protein A |
| **Concentration:** | 1mg/ml |
| **Storage:** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |
| **Applications:** | IF=1:100-500<br>not yet tested in other applications.<br>optimal dilutions/concentrations should be determined by the end user. |
| **Reactivity:** | Mouse(predicted:Human,Rat,Dog,Horse,Rabbit) |
| **Background:** | background: PPP1A is a serine/threonine protein phosphatase catalytic subunit that is essential for regulating cellular stress responses in eukaryotes. It binds to magnesium or manganese ions and exists as a monomer. It is essential for cell division, and participates in the regulation of glycogen metabolism, muscle contractility and protein synthesis. PPP1A is involved in the regulation long term synaptic plasticity and may play an important role in dephosphorylating substrates such as Ca2+/calmodulin dependent protein kinase II.<br>**Function:** Enzyme with a broad specificity. Negatively regulates TGF-beta signaling through dephosphorylating SMAD2 and SMAD3, resulting in their dissociation from SMAD4, nuclear export of the SMADs and termination of the TGF-beta-mediated signaling.<br>**Subunit:** Monomer. Interacts with SMAD2; the interaction dephosphorylates SMAD2 in its C-terminal SXS motif resulting in disruption of the |

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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| | SMAD2/SMAD4 complex, SMAD2 nuclear export and termination of the TGF-beta-mediated signaling. Interacts with SMAD2; the interaction dephosphorylates SMAD2 in its C-terminal SXS motif resulting in disruption of the SMAD2/SMAD4 complex, SMAD2 nuclear export and termination of the TGF-beta-mediated signaling.<br>**Subcellular Location:** Nucleus.<br>**Similarity:** Belongs to the PP2C family.<br>**Database links:**<br>**Entrez Gene:** 5499 Human<br>**Entrez Gene:** 19045 Mouse<br>**Entrez Gene:** 24668 Rat<br>Omim: 176875 Human<br>**SwissProt:** P62136 Human<br>**SwissProt:** P62137 Mouse<br>**SwissProt:** P62138 Rat<br>**Unigene:** 183994 Human<br>**Unigene:** 1970 Mouse<br>**Unigene:** 2024 Rat<br>Important<br>**Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |

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