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# KD-Validated Anti-PPP5C Mouse Monoclonal Antibody

Mouse monoclonal antibody
Catalog # AGI1926

## Product Information

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|---|---|
| **Application** | WB |
| **Primary Accession** | P53041 |
| **Reactivity** | Human |
| **Clonality** | Monoclonal |
| **Isotype** | Mouse IgG2b |
| **Clone Names** | 24GB6210 |
| **Calculated MW** | 56879 |
| **Gene Name** | PPP5C |
| **Aliases** | PPP5C; Protein Phosphatase 5 Catalytic Subunit; PP5; PPP5; Serine/Threonine-Protein Phosphatase 5; Protein Phosphatase T; EC 3.1.3.16; PP-T; PPT; Protein Phosphatase 5, Catalytic Subunit |
| **Immunogen** | Recombinant protein of human PPP5C |

## Additional Information

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| **Gene ID** | 5536 |
| **Other Names** | Serine/threonine-protein phosphatase 5, PP5, 3.1.3.16, Protein phosphatase T, PP-T, PPT, PPP5C, PPP5 |

## Protein Information

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| **Name** | PPP5C |
| **Synonyms** | PPP5 |
| **Function** | Serine/threonine-protein phosphatase that dephosphorylates a myriad of proteins involved in different signaling pathways including the kinases CSNK1E, ASK1/MAP3K5, PRKDC and RAF1, the nuclear receptors NR3C1, PPARG, ESR1 and ESR2, SMAD proteins and TAU/MAPT (PubMed:14734805, PubMed:14764652, PubMed:14871926, PubMed:15383005, PubMed:15546861, PubMed:16260606, PubMed:16790549, PubMed:16892053, PubMed:19176521, PubMed:19948726, PubMed:21144835, PubMed:22399290, PubMed:22781750, PubMed:23102700, PubMed:30699359, PubMed:9000529). Implicated in wide ranging cellular processes, including apoptosis, differentiation, DNA damage response, cell survival, regulation of ion channels or circadian rhythms, in response to steroid and thyroid hormones, calcium, fatty acids, TGF-beta as well as oxidative and genotoxic stresses (PubMed:14734805, PubMed:14764652, PubMed:14871926, PubMed:15383005, PubMed:15546861, PubMed:16260606, PubMed:16790549, PubMed:16892053, PubMed:19176521, PubMed:19948726, |

PubMed:21144835, PubMed:22399290, PubMed:22781750, PubMed:23102700, PubMed:30699359, PubMed:9000529). Participates in the control of DNA damage response mechanisms such as checkpoint activation and DNA damage repair through, for instance, the regulation ATM/ATR-signaling and dephosphorylation of PRKDC and TP53BP1 (PubMed:14871926, PubMed:16260606, PubMed:21144835). Inhibits ASK1/MAP3K5-mediated apoptosis induced by oxidative stress (PubMed:23102700). Plays a positive role in adipogenesis, mainly through the dephosphorylation and activation of PPARG transactivation function (By similarity). Also dephosphorylates and inhibits the anti- adipogenic effect of NR3C1 (By similarity). Regulates the circadian rhythms, through the dephosphorylation and activation of CSNK1E (PubMed:16790549). May modulate TGF-beta signaling pathway by the regulation of SMAD3 phosphorylation and protein expression levels (PubMed:22781750). Dephosphorylates and may play a role in the regulation of TAU/MAPT (PubMed:15546861). Through their dephosphorylation, may play a role in the regulation of ions channels such as KCNH2 (By similarity). Dephosphorylate FNIP1, disrupting interaction with HSP90AA1/Hsp90 (PubMed:30699359).

**Cellular Location**

Nucleus. Cytoplasm. Cell membrane. Note=Predominantly nuclear (PubMed:15383005). But also present in the cytoplasm (PubMed:15383005) Translocates from the cytoplasm to the plasma membrane in a RAC1-dependent manner (PubMed:19948726).

**Tissue Location**

Ubiquitous..

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