10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KD-Validated Anti-PPP5C mouse monoclonal antibody

Mouse monoclonal antibody
Catalog # AGI1961

Product Information

Application	WB, FC
Primary Accession	P53041
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Names	24GB6665
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

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

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..

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.