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PP5 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP8476b

Specification

PP5 Antibody (C-term) Blocking peptide - Product Information

Primary Accession	P53041
Other Accession	NP_006238

PP5 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 5536

Other Names
Serine/threonine-protein phosphatase 5, PP5, Protein phosphatase T, PP-T, PPT, PPP5C, PPP5

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8476b was selected from the C-term region of human PPP5C. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PP5 Antibody (C-term) Blocking peptide - 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:<a

href="http://www.uniprot.org/citations/16790549" target="_blank">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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PP5 Antibody (C-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

PP5 Antibody (C-term) Blocking peptide - Images

PP5 Antibody (C-term) Blocking peptide - Background

PPP5C belongs to the PPP phosphatase family, PP-T subfamily, and may play a role in the regulation of RNA biogenesis and/or mitosis. In vitro,PPP5C dephosphorylates serine residues of skeletal muscle phosphorylase and histone H1.

PP5 Antibody (C-term) Blocking peptide - References

Yang, J., et al., EMBO J. 24(1):1-10 (2005).Zhou, G., et al., J. Biol. Chem. 279(45):46595-46605 (2004).Huang, S., et al., J. Biol. Chem. 279(35):36490-36496 (2004).Swingle, M.R., et al., J. Biol. Chem. 279(32):33992-33999 (2004).Wechsler, T., et al., Proc. Natl. Acad. Sci. U.S.A. 101(5):1247-1252 (2004).