

Recombinant Dog PPP1CA Protein (2-330 aa), His-Myc-tagged

Cat. No. PPP1CA-2523D **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Dog PPP1CA Protein (2-330 aa) is produced by E. coli expression system. This protein is fused with a 10xHis tag at the N-terminal and a Myc tag at the C-terminal. Research Area: Cancer. Protein Description: Full Length of Mature Protein.
Species	Dog
Source	E.coli
ProteinLength	2-330 aa
Description	Protein phosphatase that associates with over 200 regulatory proteins to form highly specific holoenzymes which dephosphorylate hundreds of biological targets. Protein phosphatase 1 (PP1) is essential for cell division, and participates in the regulation of glycogen metabolism, muscle contractility and protein synthesis. Involved in regulation of ionic conductances and long-term synaptic plasticity. May play an important role in dephosphorylating substrates such as the postsynaptic density-associated Ca ²⁺ /calmodulin dependent protein kinase II. Component of the PTW/PP1 phosphatase complex, which plays a role in the control of chromatin structure and cell cycle progression during the transition from mitosis into interphase. Regulates NEK2 function in terms of kinase activity and centrosome number and splitting, both in the presence and absence of radiation-induced DNA damage. Regulator of neural tube and optic fissure closure, and enteric neural crest cell (ENCCs) migration during development. In balance with CSNK1D and CSNK1E,

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determines the circadian period length, through the regulation of the speed and rhythmicity of PER1 and PER2 phosphorylation. May dephosphorylate CSNK1D and CSNK1E. Dephosphorylates CENPA. Dephosphorylates the 'Ser-139' residue of ATG16L1 causing dissociation of ATG12-ATG5-ATG16L1 complex, thereby inhibiting autophagy.

Form Tris-based buffer, 50% glycerol

Molecular Mass 42.3 kDa

AA Sequence

SDSEKLNLD SIIGRLLEVQGS RPKGKNVQLTENEIRGLCLKSREIFLSQPILLELEAPLKI
CGDIHGQYYDLLRLF EYGGFPPE SNYLF LGDYVDRGKQSLETICLLLAYKIKYPENFF
LLRGNHECASINRIYGFYDECKRRYNIKLWKTFTDSFNSLP IAAIVDEKIFCCHGGLSP
DLQSMEQIR RIMRPTDVPDQGLLCDLLWSDPKDVQGWGENDRGVSFTFGAEVVA
KFLHKHDLDLICRAHQVVEDGYEFFAKRQLVTLFSAPNYCGEFDNAGAMMSVDETL
MCSFQILKPADKNKGKYGQFSGLNPGGRPITPPRNSAKAKK

Purity > 85% as determined by SDS-PAGE.

Notes Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.

Storage The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.

Concentration A hardcopy of COA will be sent along with the products. Please refer to it for detailed information.

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GENE INFORMATION

Gene Name PPP1CA protein phosphatase 1, catalytic subunit, alpha isozyme [*Canis lupus familiaris*]

Official Symbol PPP1CA

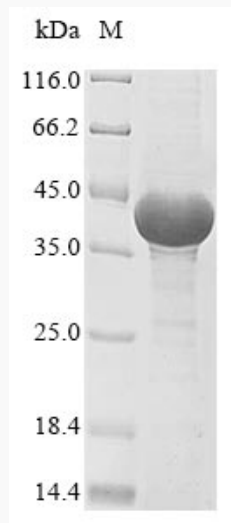
Synonyms PPP1CA; PP-1A; protein phosphatase 1, catalytic subunit, alpha isoform;

Gene ID 403609

mRNA Refseq NM_001003064

Protein Refseq NP_001003064

UniProt ID Q8WMS6



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and

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15% separation gel.

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