

Recombinant Human PPP3CA, His-tagged

Cat. No. PPP3CA-951H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human PPP3CA protein, fused to His-tag at N-terminus, was expressed in <i>E.coli</i> and purified by using conventional chromatography techniques. MW = 60.0 kDa (534aa).
Species	Human
Source	E.coli
Description	PPP3CA, also known as Calcineurin A, is a major soluble calmodulin binding protein in the brain, a Ca ²⁺ /calmodulin dependent serine/threonine protein phosphatase, with a relatively narrow substrate specificity. It activates the T cells of the immune system and can be blocked by drugs. PPP3CA activates NFATc, a transcription factor by dephosphorylating it. The activated NFATc is then translocated into the nucleus, where it upregulates the expression of interleukin 2.
Form	Liquid. In 20 mM Tris-HCl buffer (pH8.0) containing 0.2M NaCl, 5mM DTT, 1mM EDTA, 20% glycerol.
Purity	> 85% by SDS - PAGE.
Concentration	0.25 mg/ml (determined by Bradford assay).
Sequences Of Amino Acids	MGSSHHHHHH SSGLVPRGSH TGSMSPEKAI DPKLSTTDRV VKAVPFPPSH RLTAKEVFDN DGKPRVDILK AHLMKEGRL ESVLRITE GASILRQEN LLDIDAPVTV CGDIHGQFFD LMKLFEVGG PANTRYLFLG DYVDRGYFSI

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ECVLYLWALK ILYPKTLFLL RGNHECRHLT EYFTFKQECK IKYSERVYDA
 CMDAFDCLPL AALMNQQFLC VHGGLSPEIN TLDDIRKLDR FKEPPAYGPM
 CDILWSDPLE DFGNEKTQEH FTHNTVRGCS YFYSYPAVCE FLQHNNLLSI
 LRAHEAQDAG YRMYRKSQTT GFPSLITIFS APNYLDVYNN KAAVLKYENN
 VMNIRQFNCS PHPYWLPNFM DVFTWSLPFV GEKVTEMLVN VLNICSDDEL
 GSEEDGFDGA TAAARKEVIR NKIRAIGKMA RVFSVLREES ESVLTLKGLT
 PTGMLPSGVL SGGKQTLQSA IKGFSQPHKI TSFEEAKGLD RINERMPPRR
 DAMPSDANLN SINKALTSET NGTDSNGSNS SNIQ.

Storage

Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Pathways

Alzheimer"s disease; Amyotrophic lateral sclerosis (ALS); Apoptosis; Axon guidance; B cell receptor signaling pathway; Calcium signaling pathway; Long-term potentiation; MAPK signaling pathway; Natural killer cell mediated cytotoxicity; Oocyte meiosis; T cell receptor signaling pathway; VEGF signaling pathway; Wnt signaling pathway; Opioid Signalling

GENE INFORMATION

Gene Name

PPP3CA protein phosphatase 3, catalytic subunit, alpha isozyme [Homo sapiens]

Synonyms

protein phosphatase 3, catalytic subunit, alpha isozyme; CALN; CCN1; CNA1; CALNA; PPP2B; CALNA1; PPP3CA; serine/threonine-protein phosphatase 2B catalytic subunit alpha isoform; OTTHUMP00000219551; calcineurin A alpha; CAM-PRP catalytic subunit; calmodulin-dependent calcineurin A subunit alpha isoform; protein phosphatase 2B, catalytic subunit, alpha isoform; protein phosphatase 3 (formerly 2B), catalytic subunit, alpha isoform; protein phosphatase 3 (formerly 2B), catalytic subunit, alpha isoform (calcineurin A alpha); Calmodulin-dependent calcineurin A subunit alpha isoform

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Gene ID	5530
mRNA Refseq	NM_000944
Protein Refseq	NP_000935
MIM	114105
UniProt ID	Q08209
Chromosome Location	4q24
Function	calcium ion binding; calcium-dependent protein serine/threonine phosphatase activity; calmodulin binding; hydrolase activity; protein binding; protein heterodimerization activity; protein serine/threonine phosphatase activity
PDB rendering based on 1aui.	