

Recombinant Human PPP3R1, His-tagged

Cat. No. PPP3R1-3471H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human PPP3R1 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
Description	PPP3R1, also known as Calcineurin subunit B type 1, is a Ser/Thr-specific calcium and calmodulin-dependent protein phosphatase that plays an essential role in the T cell activation pathway. Calcineurin is composed of two subunits; calcineurin A (CnA) and calcineurin B (CnB). Dephosphorylation of the nuclear factor of activated T-cells (NF-AT) by Calcineurin is essential for NF-AT activation, nuclear translocation, and early gene expression in T-cells.
Form	Liquid. In 20mM Tris-HCl buffer(pH 8.0) containing 10% glycerol, 2mM DTT, 0.1M NaCl.
Molecular Weight	21.5 kDa (190aa), confirmed by MALDI-TOF
Purity	> 90 % by SDS - PAGE
Concentration	1 mg/ml (determined by Bradford assay)
Sequences of amino acids	MGSSHHHHHH SSGLVPRGSH MGNEASYPLE MCSHFDADI KRLGKRFFKL DLDNSGSLSV EEFMSLPQLQ QNPLVQRVID IFDTDGNGEV DFKEFIEGVS

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QFSVKGDKEQ KLRFAFRIYD MDKDGYSNG ELFQVLKMMV GNNLKDTQLQ
QIVDKTIINA DKDGDGRISF EEFCVAVGGL DIHKKMVDV

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.

GENE INFORMATION
Gene Name

PPP3R1 protein phosphatase 3, regulatory subunit B, alpha [Homo sapiens]

Synonyms

protein phosphatase 3, regulatory subunit B, alpha; CNB; CNB1; CALNB1; PPP3R1; calcineurin subunit B type 1; calcineurin B, type I (19kDa); protein phosphatase 2B regulatory subunit 1; protein phosphatase 2B regulatory subunit B alpha; protein phosphatase 3 (formerly 2B), regulatory subunit B, alpha isoform; protein phosphatase 3 (formerly 2B), regulatory subunit B (19kD), alpha isoform (calcineurin B, type I); protein phosphatase 3 (formerly 2B), regulatory subunit B, 19kDa, alpha isoform (calcineurin B, type I); OTTHUMP00000201960; OTTHUMP00000201961; Protein phosphatase 3 regulatory subunit B alpha isoform 1

Gene ID

5534

mRNA Refseq

NM_000945

Protein Refseq

NP_000936

MIM

601302

UniProt ID

P63098

**Chromosome
Location**

2p15

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Pathway

Amyotrophic lateral sclerosis (ALS); Alzheimer's disease; Long-term potentiation; B cell receptor signaling pathway; T cell receptor signaling pathway; Natural killer cell mediated cytotoxicity; VEGF signaling pathway; Axon guidance; Wnt signaling pathway; Apoptosis; Oocyte meiosis; Calcium signaling pathway; MAPK signaling pathway; Apoptosis; Opioid Signalling

Function

calcium ion binding; calcium-dependent protein serine/threonine phosphatase activity; calmodulin binding; protein binding

**PDBrendering based
on 1aui.**

