



# Recombinant Protein Technical Manual

**Recombinant Human PPP3R1 Protein (His Tag)(Active)**  
RPES3670

## Product Data:

**Product SKU:** RPES3670

**Size:** 20µg

**Species:** Human

**Expression host:** Baculovirus-Insect Cells

**Uniprot:** P63098

## Protein Information:

**Molecular Mass:** 21.4 kDa

**AP Molecular Mass:** 20 kDa

**Tag:** N-His

**Bio-activity:** Using the Octet RED System, the affinity constant (Kd) of human PPP3R1-His bound to Human PPIA-His was 6 nM.

**Purity:** > 87 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 8.0, 10% glycerol, 2mM DTT

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Calcineurin Subunit B Type 1; Protein Phosphatase 2B Regulatory Subunit 1; Protein Phosphatase 3 Regulatory Subunit B Alpha Osoform 1; PPP3R1; CNA2; CNB

## Immunogen Information:

**Sequence:** Gly2-Val170

## Background:

PPP3R1 belongs to the calcineurin regulatory subunit family. It is a regulatory subunit of calcineurin. 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. PPP3R1 is a Ser/Thr-specific calcium and calmodulin-dependent protein phosphatase which takes a vital part in the T cell activation pathway. PPP3R1 is involved in protein dephosphorylation, NFAT protein import into nucleus (ortholog) and epithelial to mesenchymal transition (ortholog). It participates in calcineurin signaling pathway; mitogen activated protein kinase signaling pathway. PPP3R1 interacts with (+)-pilocarpine, 2,4-dinitrotoluene and ammonium chloride. It contains four EF-hand domains and four functional calcium-binding sites. PPP3R1 play an important role in the T cell activation pathway.