



Recombinant Protein Technical Manual

Recombinant Human PPP1R14A Protein (His Tag)

RPES3265

Product Data:

Product SKU: RPES3265

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: Q96A00

Protein Information:

Molecular Mass: 17.8 kDa

AP Molecular Mass: 22 kDa

Tag: C-6His

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

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

Storage: Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

Shipping: This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < -20°C.

Formulation: Supplied as a 0.2 µm filtered solution of 20mM TrisHCl, 0.2mM EDTA, 1mM DTT, 10% Glycerol, pH 8.0.

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

Application:

Synonyms: Protein Phosphatase 1 Regulatory Subunit 14A; 17 kDa PKC-Potentiated Inhibitory Protein of PP1; Protein Kinase C-Potentiated Inhibitor Protein of 17 kDa; CPI7; PPP1R14A; CPI17; PPP1INL

Immunogen Information:

Sequence: Met 1-Pro147

Background:

Protein Phosphatase 1 Regulatory Subunit 14A (PPP1R14A) belongs to the PP1 inhibitor family. PPP1R14A is mapped to chromosome 19q13.13-q13.2. PPP1R14A binds directly to protein kinase C and casein kinase I. Meantime, PPP1R14A is a phosphorylation-dependent inhibitor of smooth muscle myosin phosphatase. PPP1R14A is the inhibitor of PPP1CA. When phosphorylated, PPP1R14A has over 1000-fold higher inhibitory activity, creating a molecular switch for regulating the phosphorylation status of PPP1CA substrates and smooth muscle contraction. In addition, inhibition of PPP1R14A also enhances contraction of smooth muscle in the absence of increment of intracellular Ca²⁺ concentration.