PRODUCT INFORMATION

Expression system E.coli

Domain 1-147aa

UniProt No. Q96A00

NCBI Accession No. NP_150281

Alternative Names

Regulatory subunit 14A, Regulatory (inhibitor) subunit 14A CPI 17, Regulatory (inhibitor) subunit 14A, Protein phosphatase 1 regulatory subunit 14A, Protein phosphatase 1 regulatory (inhibitor) subunit 14A, Protein phosphatase 1, PPP1R14A, PPP1INL, PKC potentiated inhibitory protein of PP1, CPI-17, CPI 17 alpha

PRODUCT SPECIFICATION

Molecular Weight

18 kDa (167aa) confirmed by MALDI-TOF

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 2mM EDTA, 1mM DTT, 10% glycerol

Purity

> 95% by SDS-PAGE

Tag

His-Tag

Application SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

PPP1R14A (Protein phosphatase 1 regulatory subunit 14A) is a phosphorylation-dependent inhibitory protein for smooth muscle myosin phosphate. Myosin phosphatase can reverse MYL (myosin light chain) phosphorylation to induce a state of relaxation. However, during agonist-induced contraction at constant Ca2+ concurrent inhibition of myosin phosphatase leads to increases in MYL phosphorylation and tension. These calcium-independent



increases in myosin phosphorylation and tension are termed calcium sensitization. Recombinant His tagged PPP1R14A was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

MGSSHHHHHH SSGLVPRGSH MAAQRLGKRV LSKLQSPSRA RGPGGSPGGL QKRHARVTVK YDRRELQRRL DVEKWIDGRL EELYRGMEAD MPDEINIDEL LELESEEERS RKIQGLLKSC GKPVEDFIQE LLAKLQGLHR QPGLRQPSPS HDGSLSPLQD RARTAHP

General References

Hamaguchi., et al. (2000). Biochem. Biophys. Res Commun. 274(3):825-30. Eto M., et al. (1997). FEBS Lett. 410(2-3):356-60. Lartey I., et al. (2007). Biol Reprod. 76(6):971-82.

DATA

SDS-PAGE



15% SDS-PAGE (3ug)

3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.