

Protein Phosphatase PP5 Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

Protein Phosphatase PP5

Human, recombinant protein expressed in E. coli., Active

Cat# CY-E1359

Amount: 50μg (4.4μg/μl)

Lot:

Introduction:

PP5 protein shares about 35 to 40% identity with other superfamily members, PP1 PP2A and PP2B, and the N-terminal domain contains tetratricopeptide (TRP)-like repeats found in several nuclear regulatory proteins. Expression of the TRP domain of PP5 blocks channel stimulation by thyroid hormone, and mutation of the TRP prevented its inhibitory activity. PP5 is an effector of Rac GTPase signaling. Recombinant PP5 is able to dephosphorylate serine residues and is shown to be sensitive to the tumor promoter okadaic acid.

Product Description:

Phosphatase domain of human PP5, containing an N-terminal GST tag, expressed in *E. coil.* and purified by GSH agarose chromatography.

Gene Information:

The gene accession number is NM_006247.

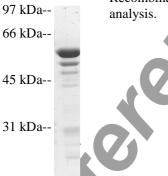
Gene Aliases:

Protein Phosphatase 5 Catalytic Subunit, PPP50

Formulation:

Recombinant PP5 is supplied frozen in a buffer containing 100mM NaCl, 20mM Tris-HCl (pH 7.0), 1mM DTT, 1mM EDTA and 50% glycerol. Use a same buffer for dilution when needed.

Molecular Weight:



Recombinant PP5 demonstrates approximately 58 kDa band by SDS-PAGE analysis.

Coomassie blue stain



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Specific Activity:

144.5 units/μg. This unit value is determined at the point of production and may vary with time and various conditions. Specific Activity also varies among production lots.

Unit Definitions:

One unit is defined as the amount of phosphatase required to release 1 pmol of phosphate from 3-O-Methylfluorescein Phosphate (OMFP) per minute at 30°C.

Storage:

Store product at -70 °C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, AVOID REPEATED HANDLING AND MULTIPLE FREEZE/THAW CYCLES.

Stability:

Unopened vial at -70 °C, for 1 year after delivery.

References:

- 1. Chen MX, McPartlin AE, Brown L, Chen YH, Barker HM, Cohen PT. A novel human protein serine/threonine phosphatase, which possesses four tetratricopeptide repeat motifs and localizes to the nucleus. EMBO J. 1994 Sep 15;13(18):4278-90.
- 2. Gentile S, Darden T, Erxleben C, Romeo C, Russo A, Martin N, Rossie S, Armstrong DL. Rac GTPase signaling through the PP5 protein phosphatase. Proc Natl Acad Sci U S A. 2006 Mar 28;103(13):5202-6.

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