



Protein Tyrosine Phosphatase PTPRQ

Product Data Sheet

For Research Use Only, Not for use in diagnostic procedures

Protein Tyrosine Phosphatase PTPRQ

Human, recombinant protein expressed in *E. coli*, Active
Cat# CY-E1323

Amount: 50µg (1.2µg/µl)

Lot:

Introduction:

PTPs are known to be signaling molecules that regulate a variety of cellular processes including cell growth, differentiation, mitotic cycle, and oncogenic transformation. Protein tyrosine phosphatase receptor type Q (PTPRQ) belongs to the type III receptor-like protein-tyrosine phosphatase (PTPase) family. PTPRQ was shown to have both protein tyrosine phosphatase activity and phosphatidylinositol phosphatase activity. PTPRQ has low activity against phosphotyrosine, but is active against phosphatidylinositol phosphates that are involved in regulation of survival, proliferation, and subcellular architecture.

Product Description:

PTPase domain of human PTPRQ, containing 2030-2258 a.a., and an N-terminal GST tag, expressed in *E. coli*. and purified by GSH agarose chromatography.

Gene Information:

The gene/protein accession number is NM_001145026/NP_001138498.

Gene Aliases:

Protein tyrosine phosphatase receptor type Q, PTPGMC1

Formulation:

The recombinant protein 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:

97 kDa--
66 kDa--
45 kDa--
31 kDa--



Coomassie blue stain

Recombinant PTPRQ demonstrates approximately 52-57 kDa band by SDS-PAGE analysis.



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Specific Activity:

0.50 units/ μ g. 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. Organesian A, Poot M, Daum G, Coats S A, Wright M B, Seifert R A, Bowen-Pope D F. Protein tyrosine phosphatase RQ is a phosphatidylinositol phosphatase that can regulate cell survival and proliferation. Proc. Nat. Acad. Sci. 100: 7563-7568, 2003.
2. Seifert R A, Coats S A, Organesian A, Wright M B, Dishmon M, Booth C J, Johnson R J, Alpers C E, Bowen-Pope D F. PTPRQ is a novel phosphatidylinositol phosphatase that can be expressed as a cytoplasmic protein or as a subcellularly localized receptor-like protein. Exp. Cell Res. 287: 374-386, 2003.
3. Wright M B, Hugo C, Seifert R, Disteché C M, Bowen-Pope D F. Proliferating and migrating mesangial cells responding to injury express a novel receptor protein-tyrosine phosphatase in experimental mesangial proliferative glomerulonephritis. J. Biol. Chem. 273: 23929-37, 1998.

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