LAR/PTPRF - N Terminal GST Tag. E.coli Active Enzyme

Protein tyrosine phosphatase receptor type F-polypeptide-interacting protein alpha-1, PTPRF-interacting protein alpha-1, LIP.1, LAR

Background

May regulate the disassembly of focal adhesions. May localize receptor-like tyrosine phosphatases type 2A at specific sites on the plasma membrane, possibly regulating their interaction with the extracellular environment and their association with substrates.

Ordering Information

Catalog Number
X1771E

Size
20 μg

Customer Storage
Product should be stored at -80ºC. Aliquot to avoid freeze/thaw cycles

Formulation
25 mM Tris-HCl, pH 8.0, 100 mM NaCl, 0.05% Tween-20, 50% glycerol, and 3 mM DTT.

Ship Conditions
Ship on dry ice, freeze upon arrival

Stability
Products are stable for one year from purchase when stored properly

Concentration
See vial for concentration

Source
Human transmembrane leukocyte antigen related PTPCatalytic domain, (a.a.1330-1620) (Gene bank accession number NM_130440) with Nterminal GST tag, MW=58 kDa, expressed in an E.coli

Activity

Useful for the study of enzyme kinetics, regulation, and to dephosphorylate target substrates. Specific Activity: 0.7 U/ug. One unit will hydrolyze 1 nmol p-nitrophenyl phosphate per minute at pH 7.4 and 37°C. Assay buffer: 50 mM HEPES, pH 7.4, 2 mM EDTA, 3 mM DTT, and 100 mM NaCl. Enzyme reaction condition: 50 mM HEPES, pH 7.4, 2 mM EDTA, 3mM DTT, 100 mM NaCl, 20 mM pNPP, and 160 ng/μl enzyme, for 5 min at 30°C.

Purity

> 95% by SDS-PAGE

Applications

Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

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Assay Methods

Materials

Assay buffer: 50 mM HEPES, pH 7.4, 100 Mm NaCl, 2 mM EDTA, 3 mM DTT.

Prepare 5 X pNPP substrate (10 mM) in the assay buffer

Enzyme preparation: LAR (0.1 mg/ml)

Procedure

1. Prepare reaction mixtures in a 96-well plate (keep on ice). Add in the order:

   60 μl of assay buffer

   20 μl of 10 mM pNPP in buffer (final conc. 2 mM)

   10 μl 1% BSA

   10 μl of 0.1 mg/ml LAR enzyme in the assay buffer

   Mix well and start the reaction at 30 °C water bath, and incubate for 10 min.

2. Add 100 μl per well of 2 M K2CO3 to stop the reaction.

3. Read absorbance at 405 nm using a plate reader

References

1.H. Cho et al. Biochemistry 1991, 30: 6210-6216

2.H. Cho et al. Biochemistry 1992, 31: 133-138

Product Specific References

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