



Recombinant PRL-2 (2–167) Active Enzyme

BACKGROUND

Mouse PRL-2, also known as Protein tyrosine phosphatase 4a2 (Ptp4a2) is a unique nuclear protein tyrosine phosphatase (PTP) that plays a central role in regulating diverse cellular processes. PRL-1 is induced in mitogen-stimulated cells and regenerating liver. Mouse PRL-2 exhibit 87% identity to mouse PRL-1 in their amino acid sequences. All mouse PRL proteins contain a C-terminal consensus sequence for prenylation. All PRL proteins bear significant sequence homology to Cdc14p and the tumor suppressor PTEN/MMAC1. PRL-2 is preferentially expressed in skeletal muscle. PRL-2 is also expressed at lower levels in other tissues

ACTIVITY

2.3 pmole/min/ μ g of enzyme; Determined using DiFMUP; Reaction conditions: 100 μ M DiFMUP, 10 min incubation at 30°C, 5 μ g enzyme.

PURITY

>95% pure as determined by Coomassie-stained SDS gel

ASSAY METHODS

MATERIALS

1. Assay Buffer: 50 mM Bis-Tris, pH 7.63, 2 mM EDTA, 2 mM DTT
3. 10 mM DiFMUP
4. 96-well black microtiter plate
5. Microtiter plate reader capable of reading fluorescence at an excitation of 355 nm and emission at 460 nm
6. Water bath or incubator at 30°C

PROCEDURE

1. Prepare reaction mixture in a 96-well **black plate**:
 - a. 90 μ l assay buffer
 - b. 1 μ l DiFMUP (Final concentration of DiFMUP is 100 μ M)
 - c. 1 μ l of PRL-2
2. Mix well and start reaction at 30°C in water bath and incubate for 10 min.
3. Read fluorescence at 355/460 nm using a microtiter plate reader.

ORDERING INFORMATION

CATALOG NUMBER
X1658E

SIZE
10 μ g

STORAGE CUSTOMER

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

SHIP CONDITIONS

Ship on gel ice, freeze upon arrival

FORMULATION

Provided in 25 mM Tris-HCl, 75 mM NaCl, pH 8.0, 0.05% Tween, 5 mM DTT and 50% glycerol

CONCENTRATION

1.5 mg/ml

SOURCE

Recombinant enzyme produced in E. coli

For research use only. Not for use in human diagnostics or therapeutics.

REFERENCES

[1] Zeng Q, Hong W, Tan YH. Mouse PRL-2 and PRL-3, two potentially prenylated protein tyrosine phosphatases homologous to PRL-1. *Biochem Biophys Res Commun.* 1998 Mar 17;244(2):421–7.

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