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## Technical Data Sheet

### For research use only

Not intended or approved for  
diagnostic or therapeutic use.

## PTP1B/PTPN1, active

(Recombinant human protein expressed in *E. coli*)

Catalog #           **E-P005**  
Size:                 20 µg  
Specific activity:   20,000 U/mg

### Product Description

PTP1B/PTPN1 is protein tyrosine phosphatase, non-receptor type 1. Recombinant human catalytic domain (amino acids 1-321) of PTP1B with N-terminal GST tag was expressed in an *E. coli* expression system. The GenBank Accession number is M31724. MW = 63 kDa.

### Specific Activity

20,000 U/mg. 1 unit of PTP1B activity is equal to 1 nmol phosphate hydrolyzed from p-nitrophenyl phosphate substrate per minute at pH 7.4 and 30 °C.

### Assay Condition

50 mM HEPES, pH 7.4, 2 mM EDTA, 3 mM DTT, 100 mM NaCl, 50 mM pNPP substrate, and 2 µg/ml recombinant PTP1B.

### Purity

> 95% by SDS-PAGE.

### Formulation

Recombinant protein is in storage buffer (25 mM Tris-HCl, pH 8.0, 75 mM NaCl, 0.05% Tween-20, 2 mM EDTA, 3 mM DTT, and 50% glycerol).

### Storage and Stability

Store product frozen at or below -70 °C. Enzyme will be stable for at least 6 months at -70 °C as undiluted stock. Freeze in working aliquots to avoid repeated thawing and freezing.

### Application

PTP1B is useful for the study of enzyme kinetics, regulation, target substrate dephosphorylation, and inhibitor screening.

### References

1. Frangioni, J.V. *et al.* (1992) *Cell* **68**: 545-60
2. Elchebly, M. *et al.* (1999) *Science* **283**: 1544-8