

19924 Pyroglutamate Aminopeptidase from *Pyrococcus furiosus*, recombinant from *E. coli*

Components:

Part 1 (Product Number 43583):

one vial with 0.01 U Pyroglutamate Aminopeptidase (lyophilised); EC 3.4.19.3

Part 2 (Product Number 98917):

one vial with 1 ml 5x Dilution Buffer (250 mM Na Phosphate pH 7.0, 50 mM DTT, 5 mM EDTA)

Source of Enzyme:

E. coli carrying plasmids encoding *Pyrococcus furiosus* pyroglutamate aminopeptidase gene.

Storage:

-20°C, Reconstituted solution should be kept at -20°C, Dilution Buffer can be kept at 4°C

Definition of Activity:

1 U corresponds to the amount of enzyme which hydrolyse 1 µmol Pyroglutamate-p-nitroanilide per minute at pH 7.0 and 37°C.

Enzyme activity:

The optimum temperature is 95-100°C (the enzyme is stable up to 75°C), the optimum pH is 6-9 (stable from pH 5-9).

Properties:

Molecular weight: 24,072 (amino acid sequence)
28,000 (SDS-PAGE)

Inhibitors: PCMB, Hg⁺

Stabilizer: DTT, EDTA

Tolerance to denaturants (stable against): ≤ 1 M Urea, ≤ 1 M guanidine-HCl, ≤ 0.01% M SDS

Directions:

Dilute the buffer 1:5 before use. Reconstitute the vial with 0.01 U Pyroglutamate Aminopeptidase in 50 µl diluted Dilution Buffer (1x). Store at -20°C.

References:

- 1) Hamazume, Y., Mega, T. and Ikenaka, T. (1987) J. Biochem., 101, 217.
- 2) Shimada, Y., Sugihara, A., Tominaga, Y., Iizumi, T. and Tsunasawa, S. (1989) J. Biochem., 106, 383.
- 3) Tsunasawa, S., Nakura, S. Tanigawa, T. and Kato, I. (1998) J. Biochem., 124, 778.

Precautions and Disclaimer:

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

The vibrant M and Sigma-Aldrich are trademarks of Merck KGaA, Darmstadt, Germany or its affiliates.

Detailed information on trademarks is available via publicly accessible resources.

© 2018 Merck KGaA, Darmstadt, Germany and/or its affiliates. All Rights Reserved.

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the US and Canada.

