Product Information

Methionine Aminopeptidase
from *Pyrococcus furiosus*, recombinant expressed in *Escherichia coli*

Catalog Number M6435
Storage Temperature –20 °C

EC 3.4.11.18
Synonyms: Met-AP, MAP

Product Description
Methionine aminopeptidase catalyzes the removal of N-terminal methionine from newly synthesized polypeptides. The terminal methionine (or its formyl derivative) serves as an initiator for protein synthesis and its removal represents one of the first steps of translational protein modification. Met-AP reacts preferentially with N-terminal methionine adjacent to physically small amino acid residues such as glycine and alanine.

The thermostable enzyme has an optimal temperature range of 85–95 °C with an optimal pH range of 7–8.

Met-AP is a metalloprotein containing cobalt. It is inhibited by EDTA and oxidizing agents. It is stable in the presence of 2 M urea, 0.2 M guandine HCl, or 0.01% SDS.

This methionine aminopeptidase preparation is a recombinant, thermostable enzyme expressed in *Escherichia coli* carrying plasmids containing a copy of the *Pyrococcus furiosus* methionine aminopeptidase gene. It is supplied as a solution containing 10 mM Tris-HCl, pH 7.5, with 0.01% TWEEN® 20 and 0.1 mM CoCl₂.

Purity: ≥95% (SDS-PAGE)
  Apparent molecular mass of 37 kDa and no other proteases are detected.

Specific activity: ≥0.5 unit/mg protein

One unit will hydrolyze 1 µmole of Met from Met-Pro-Ala-Ala-Gly per minute at pH 7.5 and 37 °C.

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.

Storage/Stability
The product ships on dry ice and storage at –20 °C is recommended. The product, as supplied, remains active for at least one year. This enzyme solution remains active for 1 hour at 75 °C (pH 7.2 and 0.5 mM Co²⁺).

References

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