

# PRODUCT DATA SHEET



Aminopeptidase N (rat kidney)  
(EC 3.4.11.2)

**CATALOG NO.:** SE-513

**LOT NO.:** Temp

**DESCRIPTION:** MW~130 kDa on SDS-PAGE. Aminopeptidase N (APN, aminopeptidase M, alanyl aminopeptidase, AAP, CD13) is a zinc-dependent membrane or soluble aminopeptidase whose physiological targets include bradykinin and enkephalin<sup>1-3</sup>. It has a broad expression pattern, is involved in cancer and inflammation, and acts as a viral receptor<sup>4,5</sup>. Rat APN has very high identity to human APN<sup>6</sup>. Free of DPPIV contamination<sup>7</sup>.

**PURITY:** >95% by SDS-PAGE.

**SPECIFIC ACTIVITY:** 11  $\mu\text{mol}/\text{min}/\text{mg}$ , when 3 ng/ $\mu\text{l}$  rat aminopeptidase N was used to cleave 10 mM substrate Leu-pNA (Cat. # P-230) at 37°C in 50 mM Tris-HCl, pH 7.5.

**USAGE:** Study enzyme kinetics, cleave target substrates, and screen for inhibitors.

**SUPPLIED AS:** 10  $\mu\text{g}$  rat aminopeptidase N at 0.37  $\mu\text{g}/\mu\text{l}$  in 10 mM Tris, pH 7.5.

**STORAGE:** -80°C. The enzyme is stable on ice for several hours. However, it is recommended that thawing and dilution of the enzyme be done within as short a time as possible before start of the assay. After initial defrost, aliquot product into individual tubes and refreeze at -80°C. Avoid repeated freeze/defrost cycles.

NOTE: When stored under the above conditions, this enzyme is stable at the concentration supplied, in its current storage buffer. Procedures such as dilution of the enzyme followed by refreezing, could lead to loss of activity.

## REFERENCES:

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2. K. Huang *et al.* *J. Biochem.* 1997 **122** 779
3. S. Albrecht *et al.* *Bioorg. Med. Chem.* 2006 **14** 7241
4. D. Reinhold *et al.* *Int. Immunopharmacol.* 2006 **6** 1935
5. Y. Luan and W. Xu *Curr. Med. Chem.* 2007 **14** 639
6. B. Malfroy *et al.* *Biochem. Biophys. Res. Commun.* 1989 **161** 236
7. T. Yoshimoto and D. Tsuru *J. Biochem.* 1983 **94** 619

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