

ENZYMES

BY

SORACHIM

Proline Specific Endopeptidase from Flavobacterium sp.

PSP-101

SPECIFICATIONS

Product name	Prolyl endopeptidase
EC	3.4.21.26
Appearance	White amorphous powder lyophilized
contaminants	Trypsin-like activity \leq 0.1% Leucine aminopeptidase \leq 0.1%
Activity	Grade I, 5.0 U/mg-solid or more
Stability	Stable at - 20°C for at least 12 months
Molecular weight	Approx. 78,000
Isoelectric point	9.1
Michaelis constants	2.5×10^{-5} M (Z-Gly-Pro-MCA), 1.4×10^{-4} M (Z-Gly-Pro-2NNap)
Structure	Monomer
Inhibitors	DFP, 3, 4-dichloroisocoumarin, Z-Gly-Pro-CH ₂ Cl
Optimum pH	6.5
Optimum temperature	37°C (40°C)
pH Stability	5.5 - 8.5 (30°C,15hr)
Thermal stability	below 40°C (pH7.0,10min)
Substrate specificity	Y-Pro(Ala)-X (Y, peptide or N-protected amino acid; X, amino acid, peptide, amide, or ester)

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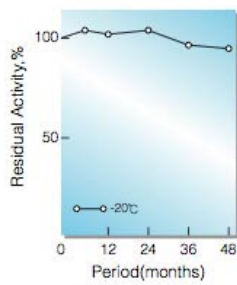


Fig.1. Stability

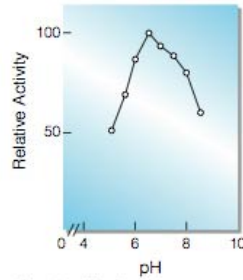


Fig.2. pH-Activity
(30°C in 50mM phosphate buffer)

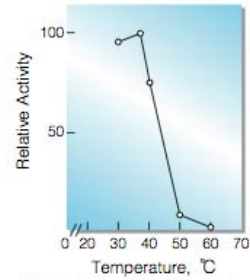


Fig.3. Temperature activity
(in 50mM phosphate buffer, pH 7.0)

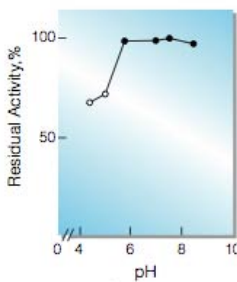


Fig.4. pH-Stability
(30°C, 15hr-treatment with buffer solution:
pH4.5-7.0, 50mM acetate;pH6.0-8.5,
0.1M phosphate)

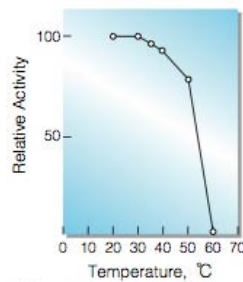


Fig.5. Thermal stability
(10min-treatment with 0.1M phosphate
buffer, pH7.0 enzyme concn.:5U/ml)