CPase Y

Carboxypeptidase Y
Serine-type carboxypeptidase

Peptidyl-L-amino-acid hydolase (EC 3.4.16.1)

from Yeast

Reaction Equation

Peptidyl-L-amino acid + H_2O = Peptide + L-Amino acid

Specification

	Specifications
Specific Activity	
IU/mg powder	>100 units (Z-Phe-Leu)
Free Amino Acid in CPase Y preparation	
Leucine	≦10 nmoles/1.5 mg CPase Y
Other amino acid	≦3 nmoles/1.5 mg CPase Y
Water Solubility	
	No Turbid is recognized in 2 mL/mg Solution (dionization water)

Assay Procedure

Ⅰ. Spectrophotometric Method

Wavelength ; 570 nm, Light path length ; 1 cm,
Temperature ; 25℃

Instructions

1 mL Sodium phosphate buffer (50 mmol/L, pH 6.5) containing Benzyloxycarbonyl-L-phenylalanyl-L-leucine (1 mmol/L)
Prepatory heating (10 minutes ; 25℃)
25 μL CPaseY (3 μg protein/mL)
Enzyme activation (exactly 10 minutes ; 25℃)
1 mL Ninhydrin reagent solution*
Boiling (15 mintues) and freezing (below 30℃)
5 mL Ethanol (50%)
Measure in 570 nm against the enzyme blank

Ⅱ. Calculation

$$\frac{\Delta A \cdot V \cdot D}{24.1 \cdot d \cdot v} = IU/mL$$

ΔA = The change in absorbance at 570 nm/10 minutes
V = Total volume of reaction mixture (7.025 mL)
D = Enzyme dilution factor
24.1 = mM extinction coefficient of Diketohydrindene ($L \cdot mmol^{-1} \cdot cm^{-1}$)
d = Light path length (1 cm)
v = Volume of enzyme sample (0.025 mL)
t = Activation time (10 minutes)

*Preparate with Moore and Stein method (*J. Biol. Chem.*, **211**, 907, 1954)

Preparation and storage

Product Code : CPase Y-03
Lyophilized powder (contains no ammonium sulfate)
·····below −20℃

OYC No./Package

OYC No.	Package
46440003	1 mg
46441003	5 mg
46442003	10 mg
46440903	Bulk

(Research reagent use only, not for medical use.)