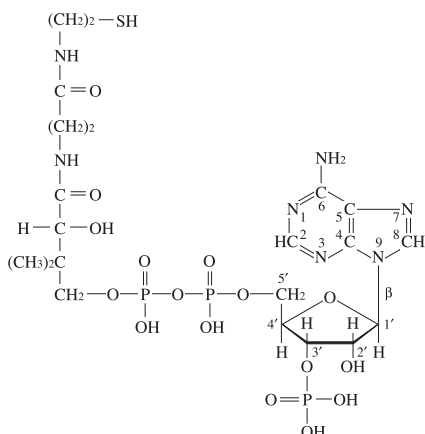


CoA

Coenzyme A (free acid) CoA-SH (free acid)

prepared enzymatically

Structure



Formula

: C₂₁H₃₆N₇O₁₆P₃S

Formula Weight

: 767.5 (as anhydrous free acid)
: 803.6 (as dihydrate)

Specification

Purity

Determined by Enzymatic Method (PTA) ≥ 75%

Water Content

< 8%

UV Spectral Analysis

Ratio at pH 7.5

A₂₅₀/A₂₆₀ 0.78 ± 0.03

A₂₈₀/A₂₆₀ 0.16 ± 0.03

Assay Procedure

I Spectrophotometric Method

Wavelength : 233 nm, Light path length : 1 cm

Pipette the following reagents into a cuvette

	a	b
Tris-HCl (0.1 mol/L, pH 7.5)	4.00 mL	4.00 mL
Acetyl Phosphate (20 mg/mL)	0.20 mL	0.20 mL
CoA (1.0 mg/mL)	0.50 mL	0.50 mL
PTA (5,000 U/mL) *	0.01 mL	—

*Phosphotransacetylase

II Calculation

$$\frac{\Delta A \cdot V \cdot MW \times 100}{4.44 \times 10^3 \cdot d \cdot v \cdot s} \times \frac{100}{(100 - W)} = \text{Purity of CoA}$$

ΔA = A_a - A_b

V = Total volume of reaction mixture (4.71 mL)

MW = 767.5, anhydrous free acid

4.44 × 10³ = Molar extinction coefficient of Acetyl-CoA at 233 nm (L · mol⁻¹ · cm⁻¹)

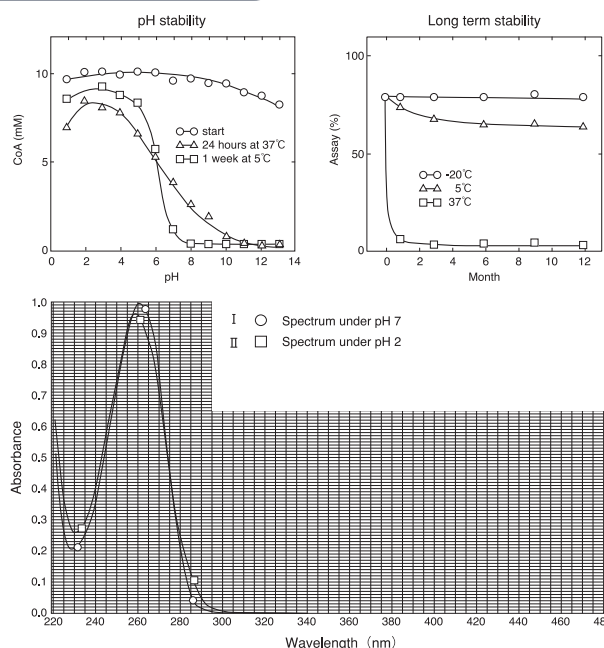
d = Light path length (1 cm)

v = Sample volume (0.5 mL)

s = Sample concentration (1.0 mg/mL)

W = Water content (%)

Reference Data



Storage

Store below -20°C. Handling during short term such as transportation is allowed at 1 - 10°C.

Store in the dark. Keep off humidity.

Cat. No./Package

Cat. No.	Package	Cat. No.	Package
45150000	100 mg	45152900	Bulk
45152000	1 g		

For in vitro diagnostic or research use only



ORIENTAL YEAST CO., LTD.