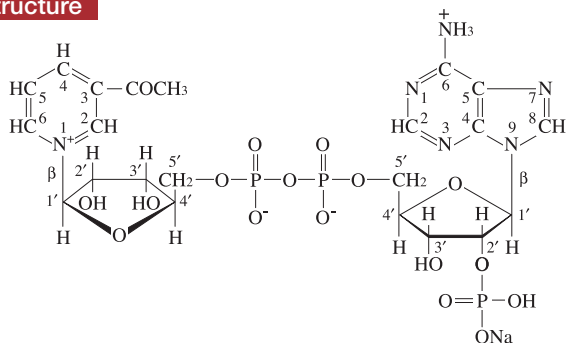


# APADP<sup>+</sup>

3-Acetylpyridine-adenine dinucleotide phosphate, oxidized form (monosodium salt)

*prepared enzymatically*

## Structure



**Formula** : C<sub>22</sub>H<sub>28</sub>N<sub>6</sub>O<sub>17</sub>P<sub>3</sub>·Na

**Formula weight** : 764.4

## Specification

### Purity

Determined by Enzymatic Method (G-6-PDH)

### Water Content

### Na

### UV Spectral Analysis

Ratio at pH 7.5

A<sub>250</sub>/A<sub>260</sub>

A<sub>280</sub>/A<sub>260</sub>

### Specifications

≥92%

<8%

6.5 ± 1.5%

0.81 ± 0.04

0.24 ± 0.03

## Assay Procedure

### I. Spectrophotometric Method

Wavelength ; 363 nm, Light path length ; 1 cm

Pipette the following reagents into a cuvette

	a	b	c	d
Tris-HCl (0.1 mol/L, pH 7.5)	5.0 mL	5.0 mL	5.0 mL	5.0 mL
G6PDH (500 IU/mL)	0.1 mL	—	0.1 mL	—
G-6-P (0.1mol/L)	0.2 mL	0.2 mL	—	—
APADP <sup>+</sup> (0.4 mg/mL)	0.5 mL	0.5 mL	—	—
Distilled water	0.2 mL	0.3 mL	0.9 mL	1.0 mL

### II. Calculation

$$\frac{\Delta A \cdot V \cdot MW \times 100}{9.1 \times 10^3 \cdot d \cdot v \cdot s} \times \frac{100}{(100 - S - W)} = \text{Purity of APADP}^+$$

$$\Delta A = A_a - (A_b + A_c)$$

V = Total volume of reaction mixture (6.0 mL)

MW = 742.4, anhydrate/sodium free

9.1 × 10<sup>3</sup> = Molar extinction coefficient of APADH at 363 nm (L·mol<sup>-1</sup>·cm<sup>-1</sup>)

d = Light path length (1 cm)

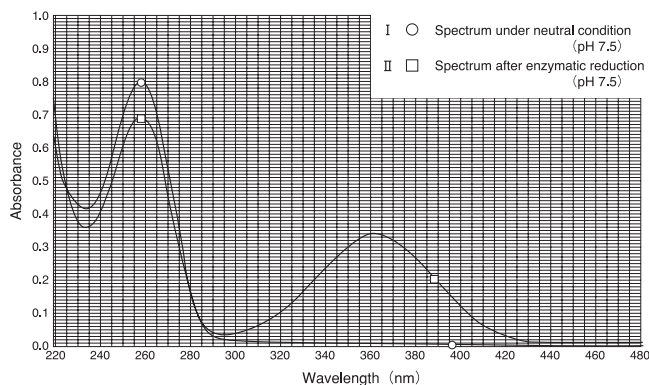
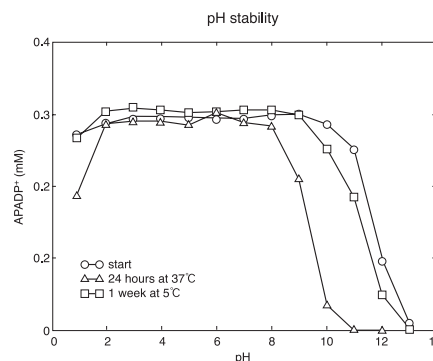
v = Sample volume (0.5 mL)

s = Sample concentration (0.4 mg/mL)

S = Na (%)

W = Water Content (%)

## Reference Data



## Storage

Keep tightly stoppered in the dark below 5°C.

Moisture will accelerate the purity reduction.

For prolonged storage keep below -20°C.

## OYC No./Package

OYC No.

44026000

Package

100 mg

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

