Tribioscience

beta-Nicotimamide Adenine Dinucleotide Phosphate, Coenzyme

Catalog	Unit
TBP0096-1G	1 g
TBP0096-5G	5 g

Product Details

Form: Crystalline powder

Molecular Weight: 823.4

Solubility: Distilled water or dilute buffer

Stability: Store at -20° C (-4° F)

Purity: 98+%

Applications

NADP is used in the determination of amylase, creatine kinase, glucose-6-phosphate dehydrogenase, isocitrate dehydrogenase, and glucose.

Reagents

1. 0.1M Triethanolamine buffer/substrate, pH 7.6: 1.86 g TEA¿HCl, 210 mg glycerate-3-P, 125 mg MgSO4¿7H 2O and 50 mg EDTA with 80 ml distilled water. Adjust pH to 7.6 with 1M NaOH-Na 2 and adjust volume to 100 ml with distilled water.
2. 0.1 M MgCl2: 2.03 g MgCl2¿6H 2O in 100 ml distilled water.
3. 14 mM D,L-Isocitrate: 4 mg D,L-isocitrate-Na3 in 1 ml TEA buffer.
4. Isocitrate dehydrogenase, from porcine heart (5 mg protein/ml): 4 U/mg

Procedure

1. Dissolve 50 mg NADP in 50 ml distilled water in a volumetric flask.
2. Set spectrophotometer (equipped with strip chart recorder and temperature control) at 340 nm and 25°C.
3. Into a cuvette, pipette the following: sample 0.10 ml Mix and read the absorbance A1.

Buffer	(1)	2.50 ml
MgCl 2	(2)	0.10 ml
D,L-isocitrate	(3)	0.10 ml

4. Add 0.02 ml of the ICDH. Mix and read absorbance A2.
5. Add an additional 0.02 ml ICDH. Mix and read absorbance A 3 (absorbance due to enzyme).

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