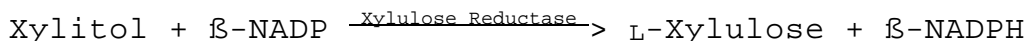


**Enzymatic Assay of L-XYLULOSE REDUCTASE
(EC 1.1.1.10)**

PRINCIPLE:



Abbreviations used:

β -NADPH = β -Nicotinamide Adenine Dinucleotide Phosphate,
Reduced Form

β -NADP = β -Nicotinamide Adenine Dinucleotide Phosphate,
Oxidized Form

CONDITIONS: T = 25°C, pH = 10.0, $A_{340\text{nm}}$, Light path = 1 cm

METHOD: Continuous Spectrophotometric Rate Determination

REAGENTS:

- A. 100 mM Glycine Buffer, pH 10.0 at 25°C
(Prepare 100 ml in deionized water using Glycine, Free Base. Adjust to pH 10.0 at 25°C with 1 M NaOH.)
- B. 100 mM Magnesium Chloride Solution (MgCl_2)
(Prepare 5 ml in deionized water using Magnesium Chloride, 4.9 M Solution.)
- C. 657 mM Xylitol Solution (Xylitol)
(Prepare 5 ml in deionized water using Xylitol)
- D. 12.5 mM β -Nicotinamide Adenine Dinucleotide Phosphate Solution (β -NADP)
(Prepare 2 ml in deionized water using β -Nicotinamide Adenine Dinucleotide Phosphate, Sodium Salt)
- E. L-Xylulose Reductase Enzyme Solution
(Immediately before use, prepare a solution containing 0.1 - 0.2 unit/ml of L-Xylulose Reductase in cold Reagent A.)

