

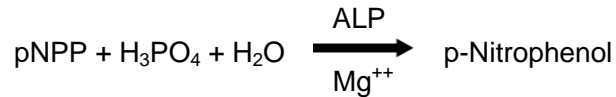
Alkaline Phosphatase

Intended Use

For **IN VITRO** quantitative determination of **Alkaline Phosphatase** in serum using manual or automated applications.

Method Principle

Alkaline Phosphatase (ALP) catalyzes the conversion of p-Nitrophenyl Phosphate (pNPP) to p-Nitrophenol. P-Nitrophenol is a bright yellow-colored compound which has maximum absorbance at 405 nm. The rate of increase in absorbance from p-Nitrophenyl Phosphate (colorless) to p-Nitrophenol (color) is directly proportional to the ALP enzyme activity in the serum sample. The reaction scheme below illustrates the reaction that occurs in this method.



Method Performance Characteristics

Sensitivity: 0.00060-0.00080 absorbance units per U/L.

Linear Range: 0 – 1200 U/L

Precision: Within-run and day-to-day precision is summarized below.

Albumin	Within-Run Precision		Day-to-Day Precision	
	MEAN	SD	CV	
	U/L	U/L	%	U/L
49	1.48	3.00	3.8	7.8
261	0.71	0.27	2.2	0.80
500	2.1	0.40	6.5	1.30

Correlation

A comparison of this method using an automated analyzer and a reference method resulted in the following regression statistics.

Correlation Data	
Parameter	Data Observed
N	153
Range	30-665 U/L
Regression	Y = 0.948x + 34
Correlation	0.999
S _{y,x}	4.7