JOURI LABS

ALP

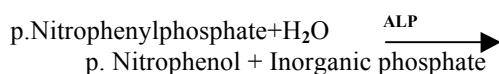**Kinetic Determination**
DGKC
Store at 2- 8ºC

PRINCIPLE

Kinetic determination of the Alkaline Phosphatase activity .
ALP catalyses the hydrolysis of pNPP at pH 10, liberating p-nitrophenol and phosphate, according to the following reaction

$$p.Nitrophenylphosphate + H_2O \xrightarrow{\text{ALP}}$$
$$p. Nitrophenol + Inorganic\ phosphate$$

REFERENCE VALUES

	30 °C - U/l	37°C – U/l
Children 1-14 years	Up to 590	Up to 800
Adults	Up to 220	Up to 270

SAMPLES

Serum, Heparin plasma free of hemolysis
Loss of activity within 7 days.

REAGENTS

R1	DEA buffer	1.0	mol/l
	Magnesium sulfate	1.0	mmol/l

R2	p.Nitrophenylphosphate	16	mmol/l

ALP substrate is toxic. Do not pipette by mouth.

PREPARATION OF WORKING REAGENT
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Reagent R1 and R2 are ready to use. If a monoreagent procedure is preferred then the reagent must be mixed in the ration 4 parts of R1 to 1 part of R2. The working reagent is stable for one month at 2-8ºC

PROCEDURE

Wavelength	405 nm
Temperature	30ºC - 37°C
Zero adjustment	Air (increasing)
Method	Kinetic - Increasing
Cuvette	1 cm light path

Sample	20 µl
Working reagent	1.0 ml

Mix and after 1 minute incubation at 30ºC, or at 37°C measure the optical density increase per minute for 3 minutes (ΔO.D/ min.)

CALCULATION

U/l = Δ O.D / min x 2742

LINEARITY

If Δ O.D/ min exceeds 0,25 repeat the test using diluted sample with saline solution.

QUALITY CONTROL

All control sera with ALP values determined by this method may be employed

NOTS

The reagent contain NaN_3, Do not swallow avoid contact with skin and mucous membranes.
Chelating agents (EDTA) interfere with the reaction**.**

SPECIFICATIO

Bilirubine 0.075g/l, lipid 10g/l, glucose 10g/l and ascorbic acid 0.5g/l don't interfere with the assay up to the givien levels**.**

PRESENTATION

40 + 10 ml	Cat No 0201	60 Tests
150+30 ml	Cat No 0202	180 Tests

BIBLIOGRAPHY

Ann. Biol. Clin., 1982, 40, 87 - 164 .
Ann. Biol. Clin., 1977, 35, 271- 273.

The following symbols are used on labels

IVD	**For in vitro diagnostic use**

Use day (last day of the month)

Temperature limitation

LOT	**Batch code**

REF	**Code**