

## Alkaline Phosphatase, Total and Isoenzymes, Serum

**Test ID:** ALKP

**Useful for:**

Aid in the diagnosis and treatment of liver, bone, intestinal, and parathyroid diseases

Determining the tissue source of increased alkaline phosphatase (ALP) activity in serum

Differentiating between liver and bone sources of elevated ALP

**Profile Information:**

Test ID	Reporting Name	Available Separately	Always Performed
ALP	Alkaline Phosphatase, S	Yes	Yes
ALPI	Alkaline Phosphatase Isoenzymes, S	No	Yes

**Methods:**

ALP: Colorimetric

ALPI: Electrophoresis

**Reference Values:**

ALKALINE PHOSPHATASE

Males

0-14 days: 83-248 U/L

15 days-<1 year: 122-469 U/L

1-<10 years: 142-335 U/L

10-<13 years: 129-417 U/L

13-<15 years: 116-468 U/L

15-<17 years: 82-331 U/L

17-<19 years: 55-149 U/L

> or =19 years: 40-129 U/L

## Females

0-14 days: 83-248 U/L

15 days-<1 year: 122-469 U/L

1-<10 years: 142-335 U/L

10-<13 years: 129-417 U/L

13-<15 years: 57-254 U/L

15-<17 years: 50-117 U/L

> or =17 years: 35-104 U/L

## ALKALINE PHOSPHATASE ISOENZYMES

< or =17 years: Reference values have not been established for patients less than 18 years of age.

> or =18 years:

Liver %: 30.2-74.7

Liver U/L: 15.8-71.9

Bone %: 23.8-68.3

Bone U/L: 12.0-56.7

Intestine %: < or =22.5

Intestine U/L: < or =12.6

## Specimen Requirements:

<b>Patient Preparation:</b>	Fasting (8 hours) required
<b>Submission Container/Tube:</b>	Sarstedt Aliquot Tube, 5 mL (T914)
<b>Collection Container/Tube Preferred:</b>	Serum gel
<b>Collection Container/Tube Acceptable:</b>	Red top
<b>Specimen Volume:</b>	1 mL
<b>Collection Instructions:</b>	<ol style="list-style-type: none"><li>1. Within 2 hours of collection, centrifuge the specimen.</li><li>2. For red top tubes, immediately aliquot into a plastic vial.</li><li>3. For serum gel tubes, serum may sit on gel refrigerated but must be aliquoted within 7 days.</li></ol>
<b>Minimum Volume:</b>	1 mL

## Specimen Stability Information:

Specimen Type	Temperature	Time
Serum	Frozen (preferred)	14 days
	Ambient	7 days
	Refrigerated	7 days

**Cautions:**

- High concentrations of phosphate, oxalate, citrate, and cyanide will inhibit ALP activity.
- Excess glycine may inhibit ALP activity by complexing magnesium.
- Patients should be fasting. Patients may have an elevated intestinal ALP about two hours after a fatty meal.

**CPT Code:**

84075

84080

**Day(s) Performed:** Tuesday through Saturday**Report Available:** 3 to 5 days**Questions**

Contact Nancy Benson, Laboratory Resource Coordinator at 800-533-1710.