ALKALINE PHOSPHATASE ISOENZYMES, SERUM



Pathology and Laboratory Medicine

Pediatric

0-2 years: 0.5 mL Red or Gold top

2-10 years: 3 mL Red top

Microtainer

Light Green (Li-Heparin) or Lavender (EDTA) top tubes

are **NOT** acceptable

Vacutainer tube

# **Orderable - ALPISO**

Turnaround Time: 10 days

## Alternate Name(s):

Adult

Alkaline Phosphatase Fractionation ALP Isoenzymes

## Specimen:

5 mL Gold top

Vacutainer tube



Laboratory: Clinical Immunology Lab



Requisition: GENERAL LABORATORY REQUISITION

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Method of Analysis: Sebia gel electrophoresis

Test Schedule: Monday-Friday 0800-1600

### **Collection Information:**

Minimum volume of serum required is 200  $\mu$ L.

#### **Reference Ranges:**

ALP Isoenzyme Fraction Reference Interval (U/L)

| Age                 | Liver<br>1 | Bone | Liver<br>2 | Intestinal |
|---------------------|------------|------|------------|------------|
| ≤14 days            | ≤77        | ≤248 | ≤17        | ≤35        |
| 15 days-<1 year     | ≤145       | ≤469 | ≤33        | ≤66        |
| 1-<10 years         | ≤104       | ≤335 | ≤23        | ≤47        |
| 10-<13 years        | ≤129       | ≤417 | ≤29        | ≤58        |
| Male 13-<15 years   | ≤145       | ≤468 | ≤33        | ≤66        |
| Male 15-<17 years   | ≤103       | ≤331 | ≤23        | ≤46        |
| Male 17-<19 years   | ≤46        | ≤149 | ≤10        | ≤21        |
| Male ≥19 years      | ≤92        | ≤97  | ≤12        | ≤18        |
| Female 13-<15 years | ≤79        | ≤254 | ≤18        | ≤36        |
| Female 15-<17 years | ≤36        | ≤117 | ≤8         | ≤16        |
| Female 17-<19 years | ≤27        | ≤87  | ≤6         | ≤12        |
| Female ≥19 years    | ≤75        | ≤77  | ≤15        | ≤15        |



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## **Interpretive Comments:**

1. The reference values of the individual isoenzymes vary with age, sex, hormonal state (pregnancy, menopause, puberty) and medications.

- 2. In children, ALP is increased due to predominant bone isoenzymes.
- 3. Intestinal isoenzymes are absent in about 60% of normal subjects
- 4. Our method does not differentiate Placental ALP from other bands.

#### Comments:

If alkaline phosphatase isoenzymes are ordered and it has been  $\leq$  15 days since the collection date of the last sample run, the test will be cancelled. Please monitor using the total alkaline phosphatase result.

### **Storage and Shipment:**

Store and ship serum frozen.