




Alkaline Phosphatase Isoenzymes

Synonyms	ALP isoenzymes
Clinical Indication	<p>Investigation of unexplained elevated alkaline phosphatase in childhood (and may occur in adults), known as transient hyperphosphatasaemia.</p> <p>Abnormalities in liver function tests may occur during normal pregnancy (probably due to increased level of oestrogens) and levels of gamma-GT and alkaline phosphatase (ALP) rise in late pregnancy; the latter mainly due to placental (heat-stable) ALP. The most pronounced change is a tendency towards cholestasis in the last trimester and in a small percentage of women symptoms of jaundice/pruritus develop (intrahepatic cholestasis of pregnancy); serum bile acids may be useful and very occasionally, it may be necessary to determine whether a raised ALP level is of placental or liver origin.</p> <p>In other patients, isoenzyme analysis may be useful to investigate the origin of an unexplained elevated alkaline phosphatase level. To help differentiate whether liver or bone origin, a gamma-GT is automatically added to samples with a raised alkaline phosphatase >100 IU/L with total bilirubin <20 umol/L, Albumin >35 and ALT <60 IU/L when the patient is >16 years of age.</p> <p>Other requests must be agreed with Consultant Biochemist.</p>
Part of Profile / See Also	
Request Form	Combined Pathology manual Blood form or ICE request
Availability / Frequency of Analysis	Referral test: Analysed by Biochemistry, King's College Hospital, Synnovis (9067) if specific criteria met. Isoenzymes separated by isoelectric focussing.
Turnaround Time	1 month
Patient Preparation	None required
Sample Requirements	<p>Specimen Type Serum</p> <p>Volume 2 ml</p> <p>Container</p> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <div style="margin-left: 10px;">Yellow top (SST) tube</div> </div> <p>Or</p> <div style="display: flex; align-items: center; margin-bottom: 10px;">  <div style="margin-left: 10px;">paediatric lithium heparin (orange top – Sarstedt tube)</div> </div> <p>Or</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;">paediatric lithium-heparin (pale green top – BD Microtainer tube)</div> </div>
Reference Range & Units	See report

Interferences

None

**Interpretation & Clinical
Decision Value (if applicable)**

An interpretive comment is provided by the referral laboratory.

References

<https://www.synnovis.co.uk/our-tests/alkaline-phosphatase-isoenzymes-0>

Test code

ALPI

Lab Handling

Aliquot 500ul and store in referrals rack at 4C. Sent daily by courier to King's College, London.



9067

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ISO 15189:2012