



Memo No. 2018-044
Date: 2-Oct-2018
Memo To: Clients
Re: **Vitamin B1**

Vitamin B1 analysis is available in whole blood or plasma/serum:

- Whole blood analysis by HPLC is performed at London Health Sciences Centre
- Plasma/serum analysis by LC-MS/MS is performed at Quest Diagnostics

ICL has noticed an increase in incidents where the test requested does not match the specimen provided. At times the error has not been realized until after the result is reported. Since specimens are sent to ICL protected from light, ICL is unable to confirm the specimen type submitted and relies on the information provided on the requisition. As a quality-improvement initiative, the following process steps are being implemented.

Specimen type must be specified on the requisition. ICL cannot confirm the specimen type submitted. If the specimen type is not indicated ICL will contact the you to confirm the order and specimen type.

Specimens must be protected from light. Specimens must be protected from light as soon as possible. The use of amber transfer vials is superior to transfer tubes wrapped in tin foil.

Freezing improves specimen quality. Refrigerated specimens are stable for a few days, however freezing ensures 100% analytical recovery of thiamine diphosphate (TDP). Specimens received refrigerated will be frozen at ICL and shipped to the testing lab.

Vitamin B1 can be analyzed in whole blood or plasma/serum. Whole blood analysis measures the predominant form (80%) and the only active form of Vitamin B1, thiamine diphosphate (TDP) and thus yields a better reflection of body stores than plasma/serum analysis. In the plasma/serum test, total plasma/serum thiamine is measured, but most of it (>85%) is the biologically inactive free thiamine, and does not correlate well with thiamine body stores, which is mostly TDP.

ICL recommends ordering and submitting specimens for whole blood Vitamin B1 analysis.

If you have further questions please contact Client Care at (416) 422-3000 Ext. 300 or

info@ICLabs.ca

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Want to receive updates by e-mail? Please contact Client Care info@ICLabs.ca

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