



**CALCULATION**

1. Plot a calibration curve on a graph paper by tracing absorbance (y axis) according to corresponding µg/dL concentration (x axis) for each Calibrator.
2. Indicate on the calibration curve the absorbance value obtained for Samples and Controls.
3. Extrapolate the µg/dL value for Samples and Controls from the calibration curve.

**CONVERSION FACTOR**

Zn: [ µg/dL ] x 0.153 = Zn [ µmol/L ]

**REFERENCE VALUES**

**Serum/plasma (adults):** 70 - 120 µg/dL  
**Centrifuged seminal fluid:** 2 - 10 mg/dL

It is recommended that each laboratory establish its own expected range. For diagnostic purposes, results obtained should always be evaluated taking into consideration the patient's history and all other clinical findings.

<b>PERFORMANCES AUTOMATIC ANALYZER</b>
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**SENSITIVITY:**

**5.0 µg/dL.** Sensitivity was calculated on 20x3 replicates x run of normal saline and reported as the "mean zero value + 3 SD".

**INTRA-ASSAY PRECISION (SERUM):**

was determined on 20 replicates on 2 controls (L1/L2). The results were as follows:

µg/dL	L1	L2
<b>mean</b>	417.7	357.8
<b>SD</b>	1.58	1.84
<b>CV%</b>	0.4	0.5

**INTER-ASSAY PRECISION (SERUM):**

was determined from 5x2x4 tests (day x run x rep) on each control (3 levels - L1/L2/L3). The results were as follows:

	mean	Total Imprecision		Between Days		Repeatability	
	µg/dL	SD	CV%	SD	CV%	SD	CV%
<b>L1</b>	94.7	2.7	2.9	2.0	2.1	1.6	1.7
<b>L2</b>	207.7	4.5	2.1	3.5	1.7	1.9	0.9
<b>L3</b>	346.7	7.1	2.0	6.3	1.8	2.8	0.8

**ACCURACY:**

this test (y) was compared with the atomic absorption method (x). The results were as follows:

**N = 60, r = 0.992, y = 1.03x - 2.79**

**INTERFERENCES:**

the test is not affected by the presence of bilirubin up to **40 mg/dL**, haemoglobin up to **500 mg/dL** and lipids up to **1500 mg/dL**. EDTA anticoagulant masks zinc to 5-Br-PAPS chromogenic system.

**ANALYTICAL RANGE:**

**5.0 - 2000 µg/dL.**

Samples with values higher than **2000 µg/dL** must be diluted 1:10 with normal saline and the result multiplied by 10.

**WASTE MANAGEMENT**

Reagents must be disposed of in accordance with local regulations.

**BIBLIOGRAPHY**

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- 5) Jakobs, D.S., Kasten, Jr., B.L., DeMott, W.R., Wolfson, W.L.: "Laboratory Test Handbook", Lexi-Comp and Williams & Wilkins Ed. (2<sup>nd</sup> Edition - 1990).
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- 7) Homsher, R., Zak, B.: "Spectrophotometric investigation of sensitive complexing agents for the determination of zinc in serum", Clin.Chem., 31/8, 1310-1313 (1985).
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**Explanation of symbols**

	In vitro Diagnostic Medical Device
	Catalogue number
	Batch code
	Contents of kit
	Caution, consult accompanying documents
	Consult instructions for use
	Use by (last day of the month)
	Contains sufficient for <n> tests
	Temperature limitation
	Manufacturer