

Magnesium Reagent

FOR THE QUANTITATIVE MEASUREMENT OF MAGNESIUM

METHOD: XYLIDYL BLUE; ENDPOINT

Magnesium measurements are used in the diagnosis and treatment of hypomagnesemia and hypermagnesemia.

Sekisui's Magnesium xylidyl blue method allows the use of a single liquid stable reagent system for the rapid and precise quantitation of magnesium in serum and plasma (lithium heparin).

Features:

- One part stable liquid
- Wide linear range*
- No significant interference displayed from samples with elevated levels of hemolysis, icterus or ascorbic acid
- Applicable to multiple instrument platforms

Benefits:

- Easy to use, no additional preparation required
- Reduces repeat testing
- Reduced need for sample dilutions
- Flexible testing, well suited for use with fully automated procedures

Performance Characteristics

Precision

- Within-Run: $\leq 7.0\%$
- Total Precision: $\leq 6.1\%$

Accuracy

SERUM^(a)

- Slope: 0.981
- Intercept: -0.0 mg/dL (-0.02 mmol/L)
- Correlation Coefficient: 0.985

PLASMA^(b)

- Slope: 1.009
- Intercept: -0.1 mg/dL (-0.04 mmol/L)
- Correlation Coefficient: 0.9903

(a) The performance of this method (y) was compared with the performance with a similar xylidyl blue method (x) on a Roche/Hitachi® analyzer.

(b) The performance of this method (plasma) was compared with the performance of this method (serum) on a Roche/Hitachi® analyzer.

Linearity

- 0.3 - 8.0 mg/dL (0.12 - 3.29 mmol/L)

No Significant Interferences Up to Levels Indicated

- Hemoglobin: 1000 mg/dL (155 $\mu\text{mol/L}$)
- Conjugated Bilirubin: 40 mg/dL (474 $\mu\text{mol/L}$)
- Unconjugated Bilirubin: 40 mg/dL (684 $\mu\text{mol/L}$)
- Ascorbic Acid: 3000 $\mu\text{g/dL}$ (170 $\mu\text{mol/L}$)
- Intralipid: 800 mg/dL (2400 mg/dL (27.1 mmol/L) Simulated Triglycerides)

Reference Range⁽¹⁾

- 1.6 - 2.6 mg/dL (0.66 - 1.07 mmol/L)

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Ordering information

	Configuration	Catalog Number
Magnesium	R1 4 x 125mL	175-12
DC-Cal Calibrator	5 x 3mL	SE-035
DC-Trol Level 1	10 x 5mL	SM-052
DC-Trol Level 2	10 x 5mL	SM-056

(1) Tietz, N.W., (Editor) Clinical Guide to Laboratory Tests, W.B. Saunders Company, Philadelphia (1983) p. 338.
* Compared to the reference range



Experience + Technology + Portfolio + Support = **CLINICAL CHEMABILITY™**

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