



Enzymatic Creatinine

FOR THE QUANTITATIVE MEASUREMENT OF CREATININE

METHOD: ENZYMATIC (CREATININE AMIDOHYDROLASE); ENDPOINT

Creatinine measurements are used as an aid to monitor and diagnose renal disease.

SEKISUI'S Enzymatic Creatinine assay utilizes a multi-step approach ending with a photometric end-point reaction. The assay accurately measures creatinine levels in serum, plasma and urine.

Generally, enzymatic methods have been shown to be more specific for the determination of creatinine levels than Jaffé-based methods.

Features

- No significant interference from samples with elevated levels of lipemia, hemolysis, icterus or ascorbic acid
- Liquid, ready to use reagent
- Applicable to multiple chemistry platforms
- Serum, lithium heparin plasma or urine acceptable

Benefits

- High reliability of testing
- Confidence in results
- Easy to use; no additional preparation required
- Laboratory flexibility
- Flexible sample types to meet different laboratory needs

Performance Characteristics

Precision

- Within-Run: $\leq 0.6\%$
- Total Precision: $\leq 2.7\%$

Accuracy^(a)

SERUM

- Slope: 1.03
- Intercept: -0.13 mg/dL ($-11.49 \text{ } \mu\text{mol/L}$)
- Correlation Coefficient: 1.0000

PLASMA

- Slope: 1.01
- Intercept: -0.03 mg/dL ($-2.92 \text{ } \mu\text{mol/L}$)
- Correlation Coefficient: 0.9997

URINE

- Slope: 1.04
- Intercept: 1.06 mg/dL ($93.70 \text{ } \mu\text{mol/L}$)
- Correlation Coefficient: 0.9995

Linearity

- Serum/Plasma: $0.03 - 30.0 \text{ mg/dL}$ ($3 - 2652 \text{ } \mu\text{mol/L}$)
- Urine: $0.02 - 175.0 \text{ mg/dL}$ ($2 - 15470 \text{ } \mu\text{mol/L}$)

No Significant Interferences Up to Levels Indicated

- Hemoglobin: 1000 mg/dL ($155.0 \text{ } \mu\text{mol/L}$)
- Intralipid: 1000 mg/dL (3000 mg/dL (33.9 mmol/L) Simulated Triglycerides)
- Ascorbic Acid: $3000 \text{ } \mu\text{g/dL}$ ($170 \text{ } \mu\text{mol/L}$)
- Unconjugated Bilirubin: 16 mg/dL (serum) ($273.6 \text{ } \mu\text{mol/L}$); 40 mg/dL (urine) ($684 \text{ } \mu\text{mol/L}$)
- Conjugated bilirubin: 40 mg/dL ($474 \text{ } \mu\text{mol/L}$)

Reference Range⁽¹⁾

SERUM/PLASMA

- Males: $\leq 1.2 \text{ mg/dL}$ ($\leq 104 \text{ } \mu\text{mol/L}$)
- Females: $\leq 1.0 \text{ mg/dL}$ ($\leq 84 \text{ } \mu\text{mol/L}$)

URINE 1ST MORNING

- Males: $40 - 280 \text{ mg/dL}$ ($3500 - 25000 \text{ } \mu\text{mol/L}$)
- Females: $30 - 230 \text{ mg/dL}$ ($2600 - 20000 \text{ } \mu\text{mol/L}$)

(a) The performance of this method (y) was compared with the performance of a similar method (x) on an Advia® 1650.

(1) Heil, W., Koberstein, R., Zawta, B. Reference Ranges for Adults and Children, Roche Diagnostics, Mannheim, 2002.

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Ordering Information

	Configuration	Catalog Number
ENZYMATIC CREATININE	R1 3 x 100mL R2 1 x 100mL	265-30
DC-CAL CALIBRATOR	5 x 3mL	SE-035
DC-TROL LEVELS 1 & 2	Level 1 5 x 5mL Level 2 5 x 5mL	SM-057

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