

2022 PRODUCT CATALOG

Reference Materials

for clinical chemistry quality control

LEADING DEVELOPMENT SINCE 1988



METHOD EVALUATION

- CALIBRATION VERIFICATION
- TROUBLESHOOTING
- CALIBRATION
- RECOVERY STUDIES
- ROUTINE QUALITY CONTROL
 - FREE DATA REDUCTION

Verified and lot certified using available standard reference materials from the National Institute of Standards and Technology

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MATRIX PLUS™ CHEMISTRY REFERENCE KIT

- liquid standards with bovine protein
- order 9240 Serum ISE Standard Kit for electrolyte ISE
- remarkable optical clarity, 21 month open stability
- suitable for most methods visible and UV, kinetic or endpoint
- known NIST verified targets for major wet chemistry analyzers
- · constant protein content and pH across the concentration levels
- no glycols, azides or surfactants
- for calibration or calibration verification

| List Number 95 | | (5 X 15 | i mL) | Price \$178.00 | | |
|--------------------------|----------|----------------|----------------|----------------|-------------|-------|
| ANALYTE | LEVEL A | LEVEL B | LEVEL C | LEVEL D | LEVEL E | |
| GLUCOSE | mg/dL | 25 | 200 | 375 | 550 | 725 |
| UREA NITROGEN | mg/dL | 5.0 | 37.5 | 70.0 | 102.5 | 135.0 |
| CREATININE, PICRATE | mg/dL | 0.2 | 6.2 | 12.2 | 18.2 | 24.2 |
| CREATININE, ENZYMATIC | mg/dL | 0.1 | 6.6 | 13.1 | 19.7 | 26.2 |
| CALCIUM | mg/dL | 5.0 | 7.5 | 10.0 | 12.5 | 15.0 |
| PHOSPHORUS | mg/dL | 1.0 | 3.5 | 6.0 | 8.5 | 11.0 |
| MAGNESIUM | mg/dL | 0.80 | 2.30 | 3.80 | 5.30 | 6.80 |
| MAGNESIUM | mEq/L | 0.66 | 1.90 | 3.13 | 4.37 | 5.60 |
| TRIGLYCERIDE* | mg/dL | 10 | 245 | 480 | 715 | 950 |
| *Triglyceride values are | ohtained | by gravimetric | weight of alvo | erol expressed | as triolein | |

*Triglyceride values are obtained by gravimetric weight of glycerol expressed as triolein.

MATRIX PLUS™ CHEMISTRY REFERENCE, LEVEL F

- identical matrix as Verichem 9500 MATRIX PLUS™ Chemistry Reference Kit for optimum linearity
- protein based, ready-to-use liquid
- no glycols, azides or surfactants
- known NIST verified targets for major wet chemistry analyzers
- for calibration or calibration verification

| List Number 9506 | (1 X 15 mL) | | Price \$38.00 |
|-----------------------|-------------|---------|---------------|
| ANALYTE | UNITS | LEVEL F | |
| GLUCOSE | mg/dL | 1000 | |
| UREA NITROGEN | mg/dL | 150 | |
| CREATININE, PICRATE | mg/dL | 30.0 | |
| CREATININE, ENZYMATIC | mg/dL | 32.7 | |
| CALCIUM | mg/dL | 20.0 | |
| PHOSPHORUS | mg/dL | 20.0 | |
| MAGNESIUM | mg/dL | 9.72 | |
| TRIGLYCERIDE* | mg/dL | 1250 | |
| | | | |

*Triglyceride values are obtained by gravimetric weight of glycerol expressed as triolein.

This product is not sold separately and must be purchased with 9500 Matrix Plus™ Chemistry Reference Kit.

| SERUM ISE STANDARD KIT | List Number | 9240 | | (5 X 15 | mL) | Price \$ | \$158.00 |
|---|-------------|--------|---------|---------|---------|----------|----------|
| protein-based, liquid gravimetric standards | ANALYTE | UNITS | LEVEL A | LEVEL B | LEVEL C | LEVEL D | LEVEL E |
| • intended for calibration verification or calibration | SODIUM | mmol/L | 50.0 | 87.5 | 125.0 | 162.5 | 200.0 |
| for direct ISE, diluted / indirect ISE and cesium flame | POTASSIUM | mmol/L | 1.00 | 3.25 | 5.50 | 7.75 | 10.00 |
| glycol and surfactant free for maximum electrode protection | CHLORIDE | mmol/L | 50.0 | 87.5 | 125.0 | 162.5 | 200.0 |
| extended range for high volume analyzers | LITHIUM | mmol/L | 0.20 | 1.30 | 2.40 | 3.50 | 4.60 |

• NIST verified and lot certified

See full description on page 8 of this catalog.

| List Number 9 | List Number 9200 | | (5 X 15 mL) | | Price \$180.00 | |
|--------------------|--|---|---|---|--|--|
| ANALYTE | UNITS | LEVEL A | LEVEL B | LEVEL C | LEVEL D | LEVEL E |
| SODIUM | mmol/L | 100 | 118 | 136 | 154 | 172 |
| POTASSIUM | mmol/L | 1.75 | 4.50 | 7.25 | 10.00 | 12.75 |
| CHLORIDE | mmol/L | 60.0 | 88.5 | 117.0 | 145.5 | 174.0 |
| LITHIUM | mmol/L | 0.50 | 1.75 | 3.00 | 4.25 | 5.50 |
| IONIZED CALCIUM | mmol/L* | 0.50 | 1.50 | 2.50 | 3.50 | 4.50 |
| *Ionized Calcium v | alues shown a | are approximat | e | | | |
| | ANALYTE SODIUM POTASSIUM CHLORIDE LITHIUM IONIZED CALCIUM | ANALYTE UNITS SODIUM mmol/L POTASSIUM mmol/L CHLORIDE mmol/L LITHIUM mmol/L IONIZED CALCIUM mmol/L* | ANALYTE UNITS LEVEL A SODIUM mmol/L 100 POTASSIUM mmol/L 1.75 CHLORIDE mmol/L 60.0 LITHIUM mmol/L 0.50 IONIZED CALCIUM mmol/L* 0.50 | ANALYTE UNITS LEVEL A LEVEL B SODIUM mmol/L 100 118 POTASSIUM mmol/L 1.75 4.50 CHLORIDE mmol/L 60.0 88.5 LITHIUM mmol/L 0.50 1.75 | ANALYTE UNITS LEVEL A LEVEL B LEVEL C SODIUM mmol/L 100 118 136 POTASSIUM mmol/L 1.75 4.50 7.25 CHLORIDE mmol/L 60.0 88.5 117.0 LITHIUM mmol/L 0.50 1.75 3.00 IONIZED CALCIUM mmol/L* 0.50 1.50 2.50 | ANALYTE UNITS LEVEL A LEVEL B LEVEL C LEVEL D SODIUM mmol/L 100 118 136 154 POTASSIUM mmol/L 1.75 4.50 7.25 10.00 CHLORIDE mmol/L 60.0 88.5 117.0 145.5 LITHIUM mmol/L 0.50 1.75 3.00 4.25 IONIZED CALCIUM mmol/L* 0.50 1.50 2.50 3.50 |

| ORDERING INFORMATION | by Mail: | Verichem Laborato 90 Narragansett Av Providence, RI 029 | enue | |
|----------------------|----------|---|--|----|
| | by Fax: | 401-467-1540 | by Email: customerservice@verichemlabs.com | |
| | , | | ing costs are prepaid and added to each invoice. Handling charge s of sale binding unless authorized by a Verichem representative. | of |

Prices effective April 1, 2022 and subject to change without notice.



Customer Service toll free (800) 552-5859

ENZYME ER™ VERIFIER KIT

- protein-based, liquid, ready-to-use
- intended for calibration verification of serum kinetic assays
- known linear relation stated for all wet chemistry analyzers
- stable 18 months from date of manufacture
- specifically designed for extended range systems
- assay values included for AU, Roche Cobas and Abbott Architect Chemistry Systems
- normal range point for all enzymes

| List Number 9410 | | (6 | X 5 ml | _) | Price \$290.00 | | |
|--------------------------------------|----------|---------|---------|---------|----------------|---------|---------|
| ANALYTE | UNITS* | LEVEL A | LEVEL B | LEVEL C | LEVEL D | LEVEL E | LEVEL F |
| ASPARTATE AMINOTRANSFERASE (AST/GOT) | U/L,37℃ | 4 | 23 | 191 | 377 | 563 | 750 |
| ALANINE AMINOTRANSFERASE (ALT/GPT) | U/L,37°C | 3 | 15 | 127 | 252 | 376 | 500 |
| ALKALINE PHOSPHATASE (ALP/AP) | U/L,37°C | 8 | 45 | 381 | 755 | 1127 | 1500 |
| LACTATE DEHYDROGENASE (LD/LDH) | U/L,37°C | 6 | 36 | 305 | 604 | 901 | 1200 |
| CREATINE PHOSPHOKINASE (CK/CPK) | U/L,37°C | 10 | 60 | 508 | 1006 | 1502 | 2000 |
| GAMMA GLUTAMYLTRANSFERASE (GGT/GGPT) | U/L,37°C | 6 | 36 | 305 | 604 | 901 | 1200 |
| ALPHA-AMYLASE (AMS/AMY) | U/L,37°C | 10 | 60 | 508 | 1006 | 1502 | 2000 |
| LIPASE (LP/LIP) | U/L,37°C | 18 | 32 | 164 | 309 | 455 | 600 |
| CHOLINESTERASE (CHE) | KU/L,37℃ | 0.1 | 0.5 | 3.8 | 7.5 | 11.3 | 15.0 |

*Typical recovery for AU Chemistry Systems; values shown are approximate.

ENZYME ER™ VERIFIER, LEVEL G

- protein-based, liquid, ready-to-use, 18 month stability
- intended to extend the range for calibration verification of AU Chemistry AST only
- assay value included for all AU Systems

| List Number 9417 | | (1 X 5 mL) | Price \$18.00 |
|--------------------------------------|---------|------------|---------------|
| ANALYTE | UNITS* | LEVEL G | |
| ASPARTATE AMINOTRANSFERASE (AST/GOT) | U/L,37℃ | 1000 | |

*Typical recovery for AU Chemistry Systems; values shown are approximate.

URINE CHEMISTRY STANDARD KIT

- intended for calibration verification or calibration
- known NIST verified gravimetric concentrations
- liquid, ready-to-use
- synthetic matrix: free of surfactants, glycols, azide and other interfering substances
- stable 24 months from date of manufacture
- treat as patient specimen with any wet chemistry urine test

| List Number 9 | | (5 X 15 | 5 mL) | Price \$246.00 | | |
|---------------|--------|---------|---------|----------------|---------|---------|
| ANALYTE UNITS | | LEVEL A | LEVEL B | LEVEL C | LEVEL D | LEVEL E |
| SODIUM | mmol/L | 10 | 110 | 210 | 310 | 410 |
| POTASSIUM | mmol/L | 2 | 52 | 102 | 152 | 202 |
| CHLORIDE | mmol/L | 20 | 115 | 210 | 305 | 400 |
| UREA NITROGEN | mg/dL | 20 | 365 | 710 | 1055 | 1400 |
| CREATININE | mg/dL | 5 | 80 | 155 | 230 | 305 |
| CALCIUM | mg/dL | 1.0 | 11.0 | 21.0 | 31.0 | 41.0 |
| PHOSPHORUS | mg/dL | 10 | 60 | 110 | 160 | 210 |
| MAGNESIUM | mg/dL | 1.0 | 3.5 | 6.0 | 8.5 | 11.0 |

(5 X 5 mL)

LEVEL C

51

LEVEL B

26

Price \$146.00

LEVEL E

101

LEVEL D

76

URINE URIC ACID STANDARD KIT

- intended for calibration verification or calibration
- known, gravimetric concentrations
- frozen liquid, ready-to-use
- synthetic matrix: free of surfactants, glycols, azide and other interfering substances
- treat as patient specimen with any wet chemistry urine test

See full description on page 10 of this catalog.

LEVEL A

1

MICROPROTEIN STANDARD KIT

- intended for calibration or calibration verification
- liquid, ready-to-use standards
- human protein components for optimum reactivity
- extremely stable formulation with 24 month shelf life at 2° to 8°C
- certified gravimetric concentrations with exceptional lot-to-lot duplication
- · suitable for any turbidimetric or colorimetric method
- azide free

| | List Number 9 | 9480 | | (5 X ⁻ | 15 mL) | Price \$ | \$178.00 |
|---|--------------------------------|----------------|---------|-------------------|-----------|------------|------------|
| l | ANALYTE | UNITS | LEVEL A | LEVEL B | LEVEL C | LEVEL D | LEVEL E |
| y | TOTAL PROTEIN Human Albumin | mg/dL mg/dL | 10 7 | 60 42 | 110 77 | 160 112 | 210 147 |

List Number 9020

UNITS

mg/dL

ANALYTE

URIC ACID

MATRIX PLUS™CHOLESTEROL REFERENCE KIT

• liquid standards with bovine protein

- remarkable optical clarity
- contains esterified and free cholesterol from bovine serum
- known concentrations verified against available NIST Standard Reference Material
- for calibration or calibration verification
- constant protein content, pH and ionic strength across concentration levels
- · prepared without surfactants, glycol or azide
- stable 21 months from date of manufacture

MATRIX PLUS™ CHOLESTEROL, LEVEL F

- identical matrix as Verichem 9550 MATRIX PLUS™ Cholesterol Reference Kit for optimum linearity
- protein based, ready-to-use liquid
- no glycols, azides or surfactants
- known concentrations verified against available NIST Standard Reference Material
- stable 21 months from date of manufacture

TOTAL PROTEIN / ALBUMIN STANDARD KIT

- for calibration verification or calibration
- prepared with human serum albumin
- accurate, liquid standards containing purified proteins in saline
- stable 24 months from date of manufacture
- known concentrations verified against available NIST Standard Reference Material

TOTAL PROTEIN / ALBUMIN STANDARD, LEVEL F

- identical matrix as Verichem 9460 Total Protein/Albumin Standard Kit for optimum linearity
- accurate, ready-to-use liquid standard
- prepared from highly purified proteins
- known concentrations verified against available NIST Standard Reference Material

HDL CHOLESTEROL VERIFIER KIT

- intended for calibration verification of serum HDL cholesterol and LDL cholesterol
- liquid, ready-to-use, no manual dilution required
- · treat as patient specimen with any indirect or direct wet method
- ultra-pure, protein matrix eliminates ambiguity and imprecision
- linear relation provided
- assigned values included for AU Chemistry Systems as well as all direct methods



Customer Service toll free (800) 552-5859

| List Number 9550 | (5 X 15 mL) | | Price \$224.00 | | | | |
|------------------|-------------|---------|----------------|---------|---------|---------|--|
| ANALYTE | UNITS | LEVEL A | LEVEL B | LEVEL C | LEVEL D | LEVEL E | |
| CHOLESTEROL | mg/dL | 40 | 155 | 270 | 385 | 500 | |
| URIC ACID | mg/dL | 2 | 7 | 12 | 17 | 22 | |
| | | | | | | | |

| List Number 9556 | (1 | X 15 mL) | Price \$46.00 |
|--------------------------|----------------|-----------|---------------|
| ANALYTE | UNITS | LEVEL F | |
| CHOLESTEROL URIC ACID | mg/dL mg/dL | 750 30 | |
| | | | |

This product is not sold separately and must be ordered with 9550 Matrix Plus™ Cholesterol Reference Kit.

| List Number 9460 | | | (5 X 15 | 5 mL) | Price \$180.00 | | |
|--------------------------------|--------------|------------|------------|------------|----------------|-------------|--|
| ANALYTE | UNITS | LEVEL A | LEVEL B | LEVEL C | LEVEL D | LEVEL E | |
| TOTAL PROTEIN Human Albumin | g/dL g/dL | 1.5 1.5 | 4.0 2.5 | 6.5 3.5 | 9.0 4.5 | 11.5 5.5 | |
| | | | | | | | |

| List Number 9466 | (1 X 15 n | Price \$36.00 | |
|--------------------------------|--------------|---------------|--|
| ANALYTE | UNITS | LEVEL F | |
| TOTAL PROTEIN Human Albumin | g/dL g/dL | 14.0 6.5 | |
| | | | |

This product is not sold separately and must be ordered with 9460 Total Protein/Albumin Standard Kit.

| List Number 9560 | | (| 6 X 5 n | nL) | Pi | rice \$36 | 8.00 |
|------------------------------------|------------------|----------|----------|-----------|------------|------------|------------|
| ANALYTE | UNITS | LEVEL A | LEVEL B | LEVEL C | LEVEL D | LEVEL E | LEVEL F |
| HDL CHOLESTEROL LDL CHOLESTEROL | mg/dL* mg/dL* | 10 20 | 42 83 | 73 147 | 105 210 | 131 263 | 200 400 |

*Typical recovery, values shown are approximate.

See full description on page 11 of this catalog.

PAGE 4

BILIRUBIN STANDARD KIT

- protein-based, optically clear, liquid standards
- intended specifically for calibration verification
- known linear relation stated in product insert
- stable 5 days after opening when refrigerated
- kit includes two, five-level sets
- no glycols, azides or surfactants
- concentrations verified using pure crystalline bilirubin and Doumas reference method

BILIRUBIN STANDARD, LEVEL F

- identical matrix as Verichem 9450 Bilirubin Standard Kit for optimum linearity
- protein based, ready-to-use liquid
- no glycols, azides or surfactants
- concentrations verified using pure crystalline bilirubin and Doumas reference method
- stable 5 days after opening when refrigerated

This product is not sold separately and must be ordered with 9450 Bilirubin Standard Kit.

| TRU-ZERO™ BILIRUBIN STANDARD | List Number 9456 | (2 X 5 r | mL) Price \$30 | 0.00 |
|---|------------------|----------|----------------|------|
| • identical matrix as Verichem 9450 Bilirubin Standard Kit for | ANALYTE | UNITS | CONCENTRATION | |
| optimum linearity | TOTAL BILIRUBIN | mg/dL | 0.0 | |
| protein based, ready-to-use liquid | DIRECT BILIRUBIN | mg/dL | 0.0 | |
| no glycols, azides or surfactants | | | | |
| no special procedures or diluents required | | | | |
| stable 5 days after opening when refrigerated | | | | |

List Number 9459

ANALYTE

TOTAL BILIRUBIN

BR2 BILIRUBIN CALIBRATOR

- specifically designed for calibration of Advanced Instruments Model BR2 Bilirubin Stat-Analyzer
- protein based, ready-to-use liquid
- no glycols, azides or surfactants
- no special procedures or diluents required
- stable 5 days after opening when refrigerated



"Verichem Laboratories is dedicated to all clinical chemists whose goal is to determine the absolute accuracy of their diagnostic test system.

Our ultimate goal is to provide clinical chemists with cost effective, ready-to-use, protein-based reference materials that are also serum-like, highly accurate and stable. For calibration verification, Verichem standards are used to determine a clinical system's bias to the true or known value, independent of consensus."

> Anthony J. DiMonte President Verichem Laboratories, Inc.

| List Number 9450 | | | (10) | (5 mL) | Price \$172.00 | | |
|------------------|------------------|--------|---------|---------|----------------|---------|---------|
| | ANALYTE | UNITS | LEVEL A | LEVEL B | LEVEL C | LEVEL D | LEVEL E |
| | TOTAL BILIRUBIN | mg/dL | 0.5 | 5.5 | 10.5 | 15.5 | 20.5 |
| | DIRECT BILIRUBIN | mg/dL* | 0.5 | 5.5 | 10.5 | 15.5 | 20.5 |

M 70 00

*direct bilirubin values may vary with methodology and conditions of assay

Technical note: Reichert Technologies Bilirubinometer requires 9456 Tru-Zero[™] Bilirubin Standard as the lowest level standard.

| List Number 9436 | (2 X 5 mL) | Price \$38.00 | |
|------------------|------------|---------------|--|
| ANALYTE | UNITS | LEVEL F | |
| TOTAL BILIRUBIN | mg/dL | 30.0 | |

(2 X 5 mL)

UNITS

mg/dL

FOR ADVANCED BR2 BILIRUBIN STAT-ANALYZER ONLY

Price \$42.00

CONCENTRATION

20.0

| | CARBON DIOXIDE STANDARD KIT | List Number 9210 | (5 X 15 mL) | | | Price \$78.00 | | |
|-----|--|------------------|-------------|---------|---------|---------------|---------|-----------|
| | aqueous, ready-to-use standards | ANALYTE | UNITS | LEVEL A | LEVEL B | LEVEL C | LEVEL D | LEVEL E |
| ÷ ® | intended for calibration verification or calibration suitable for most serum ISE or enzymatic methods prepared from reagent grade source materials | CARBON DIOXIDE | mmol/L | 5 | 10 | 20 | 30 | 40 |
| | CARBON DIOXIDE STANDARD, LEVEL F | List Number 9216 | | (1 | X 15 m | L) | Price | e \$16.00 |

ANALYTE

CARBON DIOXIDE

List Number 9040

- identical non-protein matrix as Verichem 9210 Carbon Dioxide Standard Kit for optimum linearity
- · ready-to-use liquid
- · prepared from reagent grade standard source materials
- suitable for most serum ISE or enzymatic methods •

This product is not sold separately and must be ordered with 9210 Carbon Dioxide Standard Kit.

ANALYTE

AMMONIA

AMMONIA

TOTAL IRON

AMMONIA

TOTAL IRON

- intended for calibration or calibration verification
- pH adjusted, non-protein matrix supports these critical trace analytes
- stable 24 months from date of manufacture at 2° to 8°C
- contains only reagent grade source materials
- suitable for most enzymatic ammonia and iron color methods

| AMMONIA / IRON STANDARD, LEVEL F | List Number 9046 | (1) | (15 mL) |
|--|------------------|--------|---------|
| • identical non-protein matrix as Verichem 9040 Ammonia/Iron | ANALYTE | UNITS | LEVEL I |
| Standard Kit for optimum linearity | AMMONIA | umol/l | 1175 |

- ready-to-use liquid
- prepared from reagent grade standard source materials
- · known concentrations verified against available NIST Standard **Reference Material**

This product is not sold separately and must be ordered with 9040 Ammonia / Iron Standard Kit.

ETHANOL STANDARD KIT

- protein-based, liquid standards
- intended for ethanol calibration verification or calibration
- suitable for most enzymatic methods ٠
- glycol and azide free •
- contains known linear relation for acetaminophen, lactate • and salicylate
- 18 month shelf life at 2° to 8°C

| List Number 9670 | | (| 6 X 5 n | וL) | Price \$236.00 | | | |
|------------------|-------|---------|---------|---------|----------------|---------|---------|--|
| ANALYTE I | | LEVEL A | LEVEL B | LEVEL C | LEVEL D | LEVEL E | LEVEL F | |
| ETHANOL | mg/dL | 12.0 | 77.3 | 96.0 | 311.9 | 482.4 | 600.0 | |
| LACTATE | mg/dL | 3.2 | 20.6 | 25.6 | 83.2 | 128.6 | 160.0 | |
| ACETAMINOPHEN | mg/L | 6.0 | 38.7 | 48.0 | 156.0 | 241.2 | 300.0 | |
| SALICYLATE | mg/dL | 2.0 | 12.9 | 16.0 | 52.0 | 80.4 | 100.0 | |
| | | | | | | | | |

I FVFI F

50

LEVEL C

464

790

250

Price \$132.00

LEVEL E

922

1570

490

LEVEL D

693

1180

370

Price \$20.00

UNITS

mmol/L

UNITS

umol/L

mcg/dL

mcg/dL

mcg/dL

mcg/dL

(5 X 15 mL)

LEVEL B

235

400

130

LEVEL F 1175

2000

1000

LEVEL A

6

10

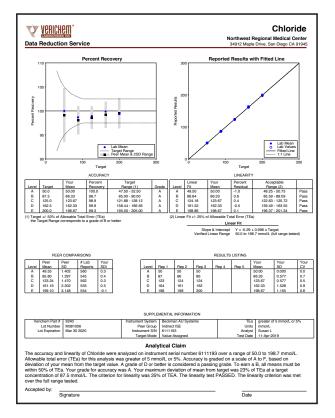
10

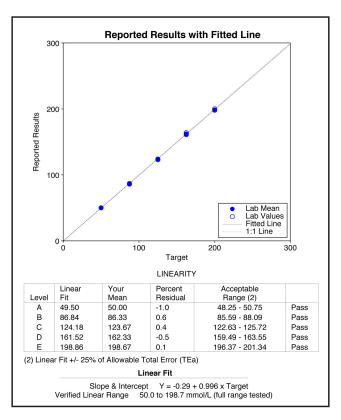
See full description on page 9 of this catalog.



Verichem has accomplished unprecedented technical achievements and continues to advance in linking definitive method value assignment with practicality. Clinical scientists worldwide have recognized the importance of Verichem premium quality control materials in routine monitoring of their chemistry systems.

NEW AND IMPROVED WEB BASED DATA REDUCTION SERVICES





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FREE INSTANT CALIBRATION VERIFICATION REPORTS

Register online at verichem-data-reduction.net

Questions? Contact us Verichem Laboratories Customer Service phone: 800-552-5859 email: customerservice@verichemlabs.com



PRODUCT NAME: SERUM ISE STANDARD KIT

INTENDED USE: The Verichem Serum ISE Standard Kit is an aqueous in vitro diagnostic product. It is intended for calibration or calibration verification of clinical chemistry test systems.

KIT SIZE: Five concentration levels, fifteen milliliters each level.

PRICE: \$158.00

DESCRIPTION

SHELF LIFE: 18 months

Verichem developed the Serum ISE Standard Kit to meet the range and matrix requirements of large volume analyzers. These standard reference materials may be treated as patient specimens with any wet chemistry ISE or color method.

Verichem's Serum ISE Standard kit is an advanced universal product design for critical evaluation and verification of serum electrolytes, including therapeutic lithium. The matrix is synthetic at pH 7.4 and contains no serum for a more stable and reproducible base. As with all Verichem products, the exclusion of serum in this formulation allows us to provide absolute known concentrations. This ready-to-use product is free of surfactants, glycols, azide and other interfering substances.

Target concentrations are equidistant and meet CLIA requirements for verification material with known values for the determination of clinical test system accuracy, sensitivity, linearity and reportable range. This set is the perfect complement to Verichem's impressive menu of known concentrations having no relation to consensus or assay. Each of these twenty absolute concentrations is verified using popular clinical methods and available Standard Reference Materials from the National Institute of Standards and Technology (NIST). A lot-specific Certificate of Analysis is included in each kit.

The Serum ISE Standard Kit contains one five-level set with fifteen milliliters each level, product insert, Certificate of Analysis and organizer tray. The fluids are packaged in translucent polyethylene dropper vials and stored at refrigerated temperatures (2° to 8°C). The vials are multiple dose and may be used numerous times until the expiration date on the kit.

| ANALYTE | UNITS | LEVEL A | LEVEL B | LEVEL C | LEVEL D | LEVEL E |
|-----------|--------|---------|---------|---------|---------|---------|
| SODIUM | mmol/L | 50.0 | 87.5 | 125.0 | 162.5 | 200.0 |
| POTASSIUM | mmol/L | 1.00 | 3.25 | 5.50 | 7.75 | 10.00 |
| CHLORIDE | mmol/L | 50.0 | 87.5 | 125.0 | 162.5 | 200.0 |
| LITHIUM | mmol/L | 0.20 | 1.30 | 2.40 | 3.50 | 4.60 |

This innovative new product complements Verichem's complete line of fluids and software for calibration verification.

ORDERING INFORMATION:

Fax to (401) 467-1540 or email your order to: **customerservice@verichemlabs.com**



90 Narragansett Avenue, Providence, RI, 02907



PRODUCT NAME: ETHANOL STANDARD KIT

INTENDED USE: The Verichem Ethanol Standard Kit is a protein based, in vitro diagnostic product. It is intended for calibration or calibration verification of serum ethanol test systems. This product also contains lactate, salicylate and acetaminophen in a known linear relation.

KIT SIZE: Six concentration levels, five milliliters each level.

PRICE: \$236.00

SHELF LIFE: 18 months

DESCRIPTION

The Ethanol Standard Kit is the newest addition to Verichem's menu. This accurate, liquid reference material spans the entire clinical range for most serum ethanol test systems. The protein based standards may be treated as patient specimens with any wet chemistry methods.

Verichem's Ethanol Standard kit is unique in design, incorporating the serum-like reactivity of a bovine protein base with the volumetric accuracy of an aqueous matrix. The matrix is bio-synthetic, containing no serum for maximum stability and lot-to-lot duplication. The exclusion of whole serum in this formulation allows Verichem to manufacture its Ethanol Standards as a standard reference material with known values. Concentrations are assigned by volumetric procedure and indicate weight per volume composition using absolute ethanol source material of known purity. This ready-to-use product is also free of surfactants, glycols, azide and other interfering substances.

Verichem's important design creates critical serum ethanol set points at or near decision cut-off concentrations of 0.01, 0.08 and 0.10 percent. The combination of unique matrix formulation and set point design are the key classic features for the absolute determination of clinical test system accuracy, sensitivity, linearity and reportable range. This set is the perfect complement to Verichem's impressive menu of known concentrations having no relation to consensus or assay. Each of the six absolute concentrations is verified using popular clinical methods and available Standard Reference Materials from the National Institute of Standards and Technology (NIST). A lot-specific Certificate of Analysis is included in each kit.

In addition to the ethanol component, Verichem's Ethanol Standard Kit contains known linear relation for lactate, salicylate and acetaminophen. Linear dilution factors were obtained by volumetric dilution of two stock standards. The resultant dilutions possess constant pH and protein content for maximum linearity performance. The dilution ratios, reflecting the relative levels of the three additional components, are stated in the product insert and may be used to determine sensitivity, linearity and reportable range for these assays.

The Ethanol Standard Kit contains one six-level set with five milliliters each level, product insert, Certificate of Analysis and organizer tray. The fluids are packaged in translucent polyethylene dropper vials. Shelf life is 18 months from the date of manufacture at refrigerated temperatures (2° to 8°C)

| ANALYTE | UNITS | LEVEL A | LEVEL B | LEVEL C | LEVEL D | LEVEL E | LEVEL F | |
|---------------|-------|---------|---------|---------|---------|---------|---------|--|
| ETHANOL | mg/dL | 12.0 | 77.3 | 96.0 | 311.9 | 482.4 | 600.0 | |
| LACTATE | mg/dL | 3.2 | 20.6 | 25.6 | 83.2 | 128.6 | 160.0 | |
| ACETAMINOPHEN | mg/L | 6.0 | 38.7 | 48.0 | 156.0 | 241.2 | 300.0 | |
| SALICYLATE | mg/dL | 2.0 | 12.9 | 16.0 | 52.0 | 80.4 | 100.0 | |

ORDERING INFORMATION:

Fax to (401) 467-1540 or email your order to: **customerservice@verichemlabs.com**

This innovative product complements Verichem's complete line of fluids and software for calibration verification.





PRODUCT NAME: URINE URIC ACID STANDARD KIT

INTENDED USE: The Verichem Urine Uric Acid Standard Kit is an aqueous, in vitro diagnostic product. It is intended for calibration or calibration verification of urine test systems.

KIT SIZE: Five concentration levels, five milliliters each level.

PRICE: \$146.00

SHELF LIFE: 19 months

DESCRIPTION

The Urine Uric Acid Standard Kit is another new addition to Verichem's menu. The product is the first absolute, liquid reference material for urine uric acid and spans the entire clinical range for urine tests. The aqueous, extended range standards may be treated as patient specimens with any wet chemistry system.

This unique new product includes a bio-synthetic matrix with urine-like reactivity. This product is a true, primary standard and meets CLIA requirements for calibration verification. Concentrations are assigned by gravimetric procedure and indicate weight per volume composition using uric acid source material of known purity. The formulation offers maximum stability and undetectable lot-to-lot variation. These uric acid standards are also free of surfactants, glycols, azide and other interfering substances.

The matrix formulation and set point design are the key classic features for determination of clinical test system accuracy, sensitivity, linearity and reportable range. Each of the five standard concentrations is verified using popular clinical methods and available Standard Reference Materials from the National Institute of Standards and Technology (NIST). A lot-specific Certificate of Analysis is included in each kit.

The Urine Uric Acid Standard Kit contains one, five-level set with five milliliters each level, product insert, Certificate of Analysis and organizer tray. The fluids are packaged in multiple dose, polyethylene dropper vials. Storage is frozen at -15 to -25°C and shipped on dry ice via next day air. The formulation is robust and can tolerate up to 10 freeze-thaw cycles without affecting accuracy or performance. Shelf life is currently 19 months from the date of manufacture and will be extended for future lots.

| ANALYTE | UNITS | LEVEL A | LEVEL B | LEVEL C | LEVEL D | LEVEL E | |
|-----------|-------|---------|---------|---------|---------|---------|--|
| URIC ACID | mg/dL | 1 | 26 | 51 | 76 | 101 | |

ORDERING INFORMATION:

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This innovative product complements Verichem's complete line of fluids and software for calibration verification.





PRODUCT NAME: HDL CHOLESTEROL VERIFIER KIT

INTENDED USE: This liquid product is intended for calibration verification of serum HDL cholesterol and LDL cholesterol test systems.

KIT SIZE: Six concentration levels, five milliliters each level

PRICE: \$368.00

SHELF LIFE: 14 months

DESCRIPTION

Verichem HDL Cholesterol Verifier kit contains high density and low density lipoprotein cholesterol from human serum in a liquid stable format. Volumetric dilution of highest and lowest concentrations provides a known linear relation among this six level set which is intended for calibration verification of most HDL and LDL wet methods.

The serum-like matrix contains a critical blend of purified human serum albumin, human serum globulin and bovine gamma globulin in saline. Protein balance, pH and ion content is constant across all six levels for optimum linearity even with the most sensitive methods. This ready-to-use product is free of surfactants, glycols and azide.

The kit challenges linearity claims for most direct or indirect HDL and LDL cholesterol test systems. Value Assignment Sheet provides expected concentration recovery for all wet chemistry, direct reacting methods.

Verichem's breakthrough in lipoprotein purification and stabilization is now setting a higher standard for cardiac risk assessment. The HDL Cholesterol Verifier Kit will meet the demands of clinical chemists searching for a convenient, stable product for simultaneous evaluation of these important analytes.

The set point design and matrix formulation represent the cutting edge in lipoprotein reference material. Free of interfering substances, the matrix allows excellent performance with selective precipitation assays. As with all Verichem reference materials, the use of highly purified source components eliminates matrix variations common with serum based products. These inherent properties combine with Verichem's stringent manufacturing tolerances to produce a high quality verifier material with predictable recovery from lot to lot.

The HDL Cholesterol Verifier Kit contains one six-level set with five milliliters each level, product insert, Value Assignment Sheet and organizer tray. The fluids are packaged in translucent polyethylene dropper vials. Shelf life is fourteen months from the date of manufacture at freezer temperatures (-15° to -25°C).

| ANALYTE | UNITS | LIST NO. 9561 LEVEL A | LIST NO. 9562 LEVEL B | LIST NO. 9563 Level C | LIST NO. 9564 LEVEL D | LIST NO. 9565 LEVEL E | LIST NO. 9566 LEVEL F | |
|-----------------|--------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|--|
| HDL CHOLESTEROL | mg/dL* | 10 | 42 | 73 | 105 | 131 | 200 | |
| LDL CHOLESTEROL | mg/dL* | 20 | 83 | 147 | 210 | 263 | 400 | |

*Typical recovery, values shown are approximate.

This innovative product complements Verichem's complete line of fluids and software for calibration verification.

ORDERING INFORMATION:

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VERICHEM PRODUCTS FOR YOUR ANALYZER (2021)

| Abbott Diagnostics: | ARCHITECT (all models) | All multi-level products compatible, Level (F) optional | | |
|----------------------------|-------------------------------|--|--|--|
| | ALINITY (all models) | All multi-level products compatible, Level (F) optional | | |
| | | | | |
| Beckman Coulter: | AU SYSTEMS (all models) | All multi-level products compatible, Level (F) optional | | |
| | DxC 700 AU | All multi-level products compatible, Level (F) optional | | |
| | UNICEL DxC (all models) | All multi-level products compatible, Level (F) optional | | |
| | | | | |
| Roche Diagnostics: | AVL 9180 | 9200 Electrolyte Standard Kit required | | |
| | COBAS C (all models) | All multi-level products compatible, Level (F) optional | | |
| | COBAS INTEGRA (all models) | All multi-level products compatible, Level (F) optional | | |
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| Siemens Healthcare: | DIMENSION (RXL/EXL/Xpand) | All multi-level products compatible, Level (F) optional | | |
| | ATELLICA / ADVIA (all models) | All multi-level products compatible, Level (F) optional | | |
| | VISTA (all models) | All multi-level products compatible, Level (F) optional | | |
| | | 9200 Electrolyte Standard Kit required for VISTA only | | |
| | | | | |
| Advanced Instruments: | BR2 BILIRUBIN STAT | 9450 Bilirubin, 9436 Bilirubin, Level F and 9459 BR2 Bilirub | | |
| | | 9456 Tru-Zero Bilirubin | | |
| | | | | |
| Alfa Wassermann: | ACE Alera | All multi-level products compatible, Level (F) optional | | |
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| EKF Diagnostics (Stanbio): | Altair / Excel | All multi-level products compatible, Level (F) optional | | |
| | | | | |
| Horiba Medical: | PENTRA (all models) | All multi-level products compatible, Level (F) optional | | |
| | | 9240 Serum ISE Standard Kit Required | | |
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| Ortho Clinical: | VITROS | 9200 Electrolyte Standard Kit only | | |
| | | | | |
| Medica Corporation: | EasyLyte | 9240 Serum ISE Standard Kit and 9200 Electrolyte Standard K | | |
| | EasyRA | All multi-level products compatible, Level (F) optional | | |
| | Luoyinn | 9200 Electrolyte Standard Kit only | | |
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| | | Released May 20 | | |

| | LABORATORIES INC. [®] Leading Development of Clinical Reference Materials since 1988 |
|------|---|
| 1988 | •9200 Electrolyte Standard Kit Pioneered the first 5-level liquid protein based gravimetric electrolyte standard. |
| 1988 | •9450 Bilirubin Standard Kit Introduced groundbreaking 5-level liquid standard set for bilirubin calibration verification without interfering glycol or surfactants. |
| 1989 | •9460 Total Protein / Albumin Standard Kit First to market with gravimetrically prepared total protein / albumin multi-level set containing total protein and 100% human albumin in liquid format. |
| 1991 | •9500 Matrix Plus Chemistry Reference Kit Formulated first liquid protein based chemistry reference materials with gravimetric target values and 21 month refrigerated stability. |
| 1991 | •9550 Matrix Plus Cholesterol Reference Kit Developed unprecedented liquid protein based total cholesterol reference material validated using the National Reference Method. |
| 1998 | •9480 Microprotein Standard Kit Released innovative microprotein multi-level set containing 100% human source material with gravimetric concentrations for microalbumin and micro-total protein. |
| 2002 | •9000 Urine Chemistry Standard Kit Completed formulation and marketed original liquid urine chemistry 5-level reference material with gravimetric target concentrations. |
| 2003 | •9560 HDL Cholesterol Verifier Kit Developed formulation for liquid HDL / LDL cholesterol reference material with 100% human lipoprotein accommodating multiple freeze-thaw cycles without affecting performance. |
| 2005 | •9670 Ethanol Standard Announced breakthrough design offering multi-level calibration verification kit containing pure ethanol as a gravimetric standard in protein base with NIST certification. |
| 2008 | •Verichem Data Reduction Service Introduced web-based CLIA Data Reduction for instantaneous and comprehensive reports including peer comparison. |
| 2012 | •BR2 Bilirubin Calibrator Custom designed protein-based liquid bilirubin calibrator for the BR2 Bilirubin STAT Analyzer standardized for the direct absorbance total bilirubin method. |
| 2015 | •9240 ISE Standard Kit Created a liquid in vitro diagnostic product intended for calibration or calibration verification of serum electrolyte test systems. |
| 2015 | •9020 Urine Uric Acid Standard Kit First gravimetrically prepared, liquid standard set for urine uric acid calibration verification. |
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