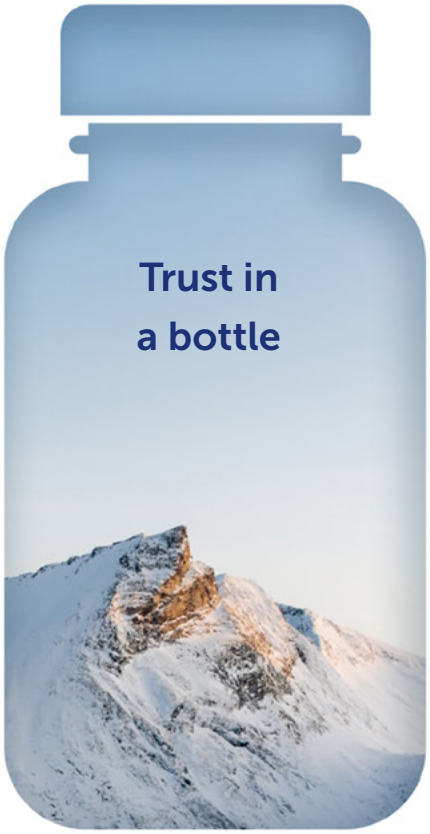
SERO



Quality Controls

Product catalogue

The independent control sera specialist since 1963

From pioneer to leading international producer of quality control material.

1963

Establishment of SERO, the oldest quality control manufacturer in the world. SERO and Nycomed (previously Nyegaard AS) enter into close cooperation to produce, market and distribute quality controls. Launch of Seronorm.

1965-75

Seronorm® receives wide international recognition. Different Seronorm®-branded products become synonymous with internal quality control in Northern and Western Europe. Distribution starts in Japan in 1972.

1975

Prof. Lorentz Eldjarn receives the IFCC (International Federation of Clinical Chemistry) Distinguished Scientist Award in Toronto.

1994

The SERO laboratory is one of the first laboratories in Scandinavia to become accredited against EN 45001 ISO Guide-25.

1998

SERO takes over the distribution of the Seronorm® products from Nycomed in Norway. The same occurs in 2005 in Sweden and Denmark, and in 2020 in Finland.

2001

SERO opens a new production unit specially designed for the filling and lyophilisation of control materials, including the sterile filling of liquid products.

2004

ISO 9001 & 13485 certification.

2013

SERO celebrates 50 years of service to laboratory medicine.

2016

SERO establishes SERO Bioscience & Technology (Beijing) Co. Ltd. in Beijing.

2018

For the first time in its history, SERO produces more than two million vials in one calendar year, positioning SERO as one of the industry leaders.



Trust through **quality**

Every day, patients around the world have their blood and other biological fluids analysed by laboratories, the results of which provide doctors with a basis for clinical diagnosis.

The quality of this diagnosis depends on the reliability of the analyses and therefore on the laboratory's quality assurance (QA) system. Quality control (QC) materials are at the heart of any QA system, hence the importance of using QC materials that the laboratory can rely on.

Producing QC materials is not just one of our activities; it is our only production activity. SERO has the knowledge, competence, dedication, and technical expertise to produce world-class products that have been present for decades in international markets, and particularly in quality-demanding markets like Scandinavia, Germany and Japan, the latter being our most important export country.

SERO is a Norwegian based company and has become one of Europe's largest QC producers. The highy, consistent quality of our products is deeply appreciated by our quality conscious customers, which include large international laboratory chains, highly reputable hospital laboratories, as well as many IVD organisations, including several of the top ten IVD companies in the world.

As your QC partner we are dedicated to deliver you trust in a bottle.



Professor Dr. Med. Lorentz Eldjarn, founder of SERO and pioneer in the field of QC materials for the laboratory.



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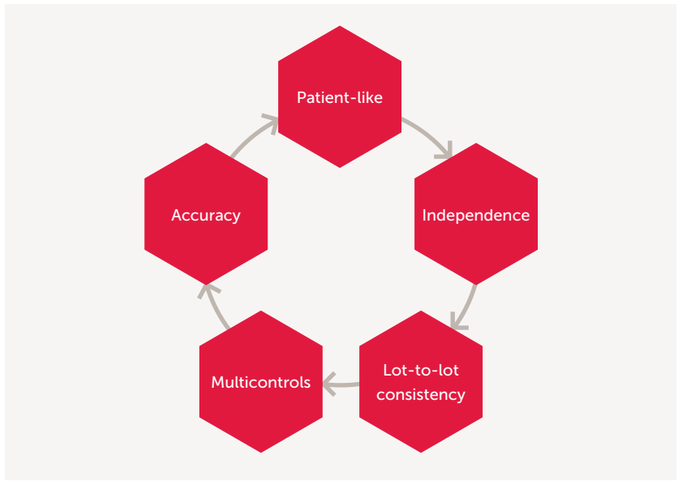
Product **philosophy**

The purpose of quality control materials in the clinical laboratory is to help monitor the analytical process in order to detect, reduce and correct any deficiencies that could lead to wrong clinical decisions being made.

SERO's product philosophy – in line with our corporate mission – has always been to provide laboratories with high-quality control materials that ensure reliable results.

That is why SERO puts quality first in each step of the production process – from the selection of raw materials for production to data collection for product documentation. As an integral part of our product philosophy, SERO focuses on the following properties:





Patient-like QC materials

Standard ISO 15189 for medical laboratories clearly states: "The laboratory shall use quality control materials that react to the examining system in a manner as close as possible to patient samples".

SERO's products are based on 100% human matrix which is handled with great caution throughout the production process. The whole production process is designed to protect the properties of the matrix and thereby enable the final product to behave in a manner similar to patient samples. This combined with a strict selection of raw materials based on our high level of expertise ensures the quality of SERO products.

True independent QC materials

SERO's branded products are true independent controls. Production is not optimized for any specific instrument or reagent kit, and the accuracy and precision data in the package inserts come from independent, trustworthy laboratories using SERO's value assignment protocols.

With modern analytical instruments being more and more of a "black box system", the best way for medical laboratories to control their laboratory system is through the use of third-party quality controls. ISO 15189 "Medical laboratories – Requirements for quality and competence" states its recommendations with regard to the selection of QC materials: "Use of independent third-party control materials should be considered, either instead of, or in addition to, any control materials supplied by the reagent or instrument manufacturer".

High lot-to-lot consistency

At SERO, we are fully aware that laboratories prefer minimal lot-to-lot variation due to the challenging and time-consuming task of introducing a new lot.

Our fully integrated production facility which ensures control of each step of the production process coupled with strict selection of the raw materials used in the production enable us to document high lot-to-lot consistency. This has been a key reason why many modern laboratories choose and keep SERO as their long-term control sera partner.

Multicontrols – allow savings

The SERO multi-parameter controls allow for huge savings. With the launch of Seronorm® Immunoassay in 2003, SERO was the first QC manufacturer in the world to offer a highly consolidated immunoassay control that contains about 50 analytes, including most hormones, tumour markers and cardiac markers. By reducing the number of immunoassay controls used to cover the test menu in the laboratory, Seronorm® Immunoassay has made it possible to significantly reduce waste related to dead volume in the instrument and enabled laboratories to achieve huge savings.

Our aim is to simplify our customers' daily laboratory routines and reduce the time and money spent on running QC materials. SERO's product range includes several multi-parameter control materials.

Accuracy – trustworthy laboratory results through traceable analytical data

SERO's accuracy controls can be used both for the monitoring of day to day precision, and the information supplied with certain controls can be used to compare the trueness of your analytical results with other instruments. The SERO lot-specific product documentation provides specific information on analytical results, methods, an uncertainty budget and traceability in accordance with ISO 17511 and ISO 18153*.



* For detailed information concerning which control materials that can be used to monitor trueness and/or precision, please refer to the Instructions for Use available at our website www.sero.no or upon request.

SERO's **Quality Controls**

All products are based on 100% human matrix.

	Clin. Chemistry	Lipids	Enzymes	Proteins	Hormones	Cardiac Markers	Acute Markers	Tumour Markers	Therapeutic Drugs	Trace Elements	Diabetes	Liquid	Lyophilized	Levels
Seronorm® Immunoassay Liq					■	■		■	■			■		4
Seronorm® Immunoassay Lyo					■	■		■	■				■	3
Seronorm® Cardiac Acute Liq						■	■					■		4
Seronorm® Cardiac Acute Lyo						■	■						■	4
Seronorm® Immunoprotein Liq				■								■		2
Seronorm® Immunoprotein Lyo				■									■	2
Seronorm® CRP Liquid				■								■		3
Seronorm® Human	■	■	■	■		■			■				■	2
Autonorm® Clin Chem Liq	■	■	■	■		■			■			■		3
Seronorm® Paediatric	■		■										■	1
Seronorm® Urine	■		■		■							■		2
Seronorm® HbA1c Liquid											■	■		2
Seronorm® Trace Elements Serum										■			■	2
Seronorm® Trace Elements Whole Blood										■			■	3
Seronorm® Trace Elements Urine										■			■	2
Autonorm® Pharmaca Liq									■			■		2

Customized quality control materials

In addition to branded products SERO has several decades of experience in customization of control materials for IVD companies, EQA organizations as well as group of laboratories or laboratory chains. Should you have any needs not covered by our current range, feel free to contact us, we might have the possibility to tailor-make a specific material, for example in the clinical chemistry or immunoassay field.

The SERO **product range**

Clinical chemistry

- Autonorm® Clin Chem Liq
- Seronorm® Urine
- Seronorm® Human

Immunoassay

- Seronorm® Immunoassay Liq
- Seronorm® Immunoassay Liq Low
- Seronorm® Immunoassay Lyo
- Seronorm® Cardiac Acute Liq
- Seronorm® Cardiac Acute Lyo

Protein

- Seronorm® Immunoprotein Liq
- Seronorm® Immunoprotein Lyo
- Seronorm® CRP Liquid

Trace Elements

- Seronorm® Trace Elements Serum*
- Seronorm® Trace Elements Whole Blood*
- Seronorm® Trace Elements Urine*

Speciality products

- Seronorm® Paediatric
- Seronorm® HbA1c Liq
- Autonorm® Pharmaca Liq

* Also available as research use only (RUO)

“We are experts of control materials so that with our products you can take control of your analytical quality.”

Stefan Kernstock, CEO



Seronorm® Immunoassay

Your complete immunoassay control



Main features	Benefits
Versatile Testing	Integrates a broad spectrum of immunoassay markers including hormones, cardiac markers, fertility, and cancer markers for comprehensive testing.
High-Quality Serum	Based on 100 % human serum, free from preservatives or stabilizers to ensure natural sample conditions.
Extensive Documentation	Features comprehensive product documentation, providing assigned values for over 50 analytes across commonly used instruments.
Clinically Diverse	Available in three clinically relevant levels, with an even lower level offered in Seronorm® Immunoassay Liq Low, each available separately to suit different quality control needs.
Excellent Shelf Life	Available in both liquid and lyophilized forms, with the lyophilized version offering a shelf life of 4 years.
Independent QC Material	Provides an objective assessment of the entire analytical system.

Analytes

17-α-OH-Progesterone
25(OH) Vitamin D
25(OH) Vitamin D3
AFP
Aldosterone
AMH *
Androstenedione
Anti-Tg *
Anti-TPO *
β2-microglobulin
β-hCG, total
CA 125
CA 15-3
CA 19-9
CEA
CK-MB
Cortisol
C-peptide
DHEA-Sulfate
Digoxin
EPO
Estradiol
Ferritin
Folate
FSH
hCG, total
HE4 *
hGH
Homocysteine
IgE, total
IGFBP-3
IGF-1
Insulin
LH
Methylmalonic acid
Myoglobin
NT-proBNP
Ostase
Progesterone
Prolactin
Prostatic acid phosphatase
PSA, complexed *
PSA, free
PSA, total
PTH, intact
SHBG
T3, free
T3, total
T4, free
T4, total
TBG
Testosterone
Theophylline
Thyroglobulin
Troponin I
Troponin T
TSH
Vitamin B12

Refer to the lot specific product documentation of currently available lots for specific analyte and stability claims. For details concerning intended use, please refer to the Instructions for Use (IFU). The documents are available on our website www.sero.no or upon request.

Order Information

Art. no	Product	Size
207005	Seronorm® Immunoassay Liq L-1 ΔΔ	12 x 3 mL
207105	Seronorm® Immunoassay Liq L-2 ΔΔ	12 x 3 mL
207205	Seronorm® Immunoassay Liq L-3 ΔΔ	12 x 3 mL
206005	Seronorm® Immunoassay Lyo L-1 ΔΔ	12 x 3 mL
206105	Seronorm® Immunoassay Lyo L-2 ΔΔ	12 x 3 mL
206205	Seronorm® Immunoassay Lyo L-3 ΔΔ	12 x 3 mL

Stability

	Shelf life	Open vial stability	
Liquid	≤ -20 °C	≤ -20 °C	2-8 °C
	3 years **	1 month ***	10 days **

	Shelf life	Open vial stability	
Lyophilized	2-8 °C	≤ -20 °C	2-8 °C
	4 years **	1 month Δ	10 days **

* Lot to lot variation may occur
** With a few exceptions
*** When refrozen within 30 minutes
Δ When reconstituted and frozen within 30 minutes
ΔΔ Not available in the US

Seronorm® Immunoassay Liq Low

Analytes

17-α-OH-Progesterone
25(OH) Vitamin D
25 (OH) Vitamin D3
Aldosterone
Androstenedione
Cortisol
Ferritin
IgE, total
PSA, total
T4, free
TBG
Testosterone
TSH
Vitamin B12

Refer to the lot specific product documentation of currently available lots for specific analyte and stability claims. For details concerning intended use, please refer to the Instructions for Use (IFU). The documents are available on our website www.sero.no or upon request.



Main features	Benefits
Clinically low levels of relevant analytes for control of e.g. anaemia	Ensures control of relevant low concentrations of cortisol, ferritin, TSH, and other analytes.
Based on 100% human serum; no preservatives or stabilizers added	Behaves similar to a patient sample, allowing highly trustworthy results, especially during reagent lot changes.
Comprehensive product documentation from independent laboratories	Provides analytical data for the most frequently used instruments on the market.
Liquid control material	No need for reconstitution. Eliminates potential handling errors. Ready to use right after thawing.
Independent QC material	Provides an objective assessment of the entire analytical system.

Stability

	Shelf life	Open vial stability	
Liquid	≤ -20 °C	≤ -20 °C	2-8 °C
	3 years **	1 month ***	10 days **

Order Information

Art. no	Product	Size
207305	Seronorm® Immunoassay Liq Low ΔΔ	12 x 3 mL

** With a few exceptions
*** When refrozen within 30 minutes
ΔΔ Not available in the US

Seronorm® Immunoprotein

Analytes

α1-acid-glycoprotein
α1-antitrypsin
α2-macroglobulin
Albumin
Anti-CCP
Apolipoprotein A1
ASO
β2-microglobulin
C3
C3c
C4
Ceruloplasmin
CRP
Cystatin C
Digitoxin
Ferritin
Haptoglobin
IgA
IgE, total
IgG
IgM
Myoglobin
Prealbumin
Protein, total
RF
Transferrin
Electrophoresis *

Refer to the lot specific product documentation of currently available lots for specific analyte and stability claims. For details concerning intended use, please refer to the Instructions for Use (IFU). The documents are available on our website www.sero.no or upon request.



Main features	Benefits
Rich Protein Range	Contains over 20 crucial proteins including Cystatin C, anti-CCP, RF, CRP, Digitoxin and ASO, covering a broad spectrum of immunodiagnostic needs.
A superior shelf life of 4 years	Behaves similar to a patient sample, allowing highly trustworthy results, especially during reagent lot changes.
Available in both liquid and lyophilized versions	Liquid: Ready-to-use, no reconstitution needed. Lyophilized: Flexible for transport and storage control.
High-Quality Serum	Based on 100% human serum, free from preservatives and stabilizers, to ensure natural sample conditions.
Precisely Documented	Accompanied by precise documentation with assigned values applicable for nephelometric and turbidimetric methods, ensuring reliable results.
Immediate Usability	Ready to use straight from thawing, with no need for reconstitution, minimizing handling errors and streamlining workflow.

Stability

	Shelf life	Open vial stability	
Liquid	≤ -20 °C	≤ -20 °C	2-8 °C
	4 years **	1 month ***	14 days **
Lyophilized	2-8 °C	≤ -20 °C	2-8 °C
	4 years **	1 month Δ	14 days

Order Information

Art. no	Product	Size
214405	Seronorm® Immunoprotein Liq L-1	6 x 2 mL
214505	Seronorm® Immunoprotein Liq L-2	6 x 2 mL
202805	Seronorm® Immunoprotein Lyo L-1	6 x 1 mL
202905	Seronorm® Immunoprotein Lyo L-2	6 x 1 mL

* Present in Seronorm Immunoprotein Liq L-1
** With a few exceptions
*** When refrozen within 30 minutes
Δ When reconstituted and frozen within 30 minutes

Seronorm® Cardiac Acute

The most complete acute control on the market



Main features	Benefits
Excellent shelf life	Up to 3-year stability without extra additives.
Comprehensive Coverage	Combines an extensive panel of cardiac and acute markers to aid in diagnosing severe conditions like inflammation and sepsis (PCT, IL-6), brain trauma (S-100 beta), thrombosis (D-dimer), and ectopic pregnancy (hCG).
Tailored Control Options	Features two variants of low-level controls (L-1A and L-1B) to ensure accurate readings across different platforms, particularly for critical markers like Troponin I, Troponin T, PCT, NT-proBNP, and BNP.
Ready-to-Use Convenience	Liquid control based on 100 % human serum.
Precisely Documented	Comes with detailed product documentation, providing assigned values for all analytes compatible with the instruments most frequently used clinically.
Reliable Quality	Offers dependable performance, supporting critical care decisions in fast-paced medical environments, including POC.

Analytes

BNP	CRP	Homocysteine	Procalcitonin
β-hCG, total	D-dimer	IL-6	S-100 beta
CK, total	Digoxin	Myoglobin	Troponin I
CK-MB	hCG, total	NT-proBNP	Troponin T

Refer to the lot specific product documentation of currently available lots for specific analyte and stability claims. For details concerning intended use, please refer to the Instructions for Use (IFU). The documents are available on our website www.sero.no or upon request.

Order Information

Art. no	Product	Size
211005	Seronorm® Cardiac Acute Liq L-1A	6 x 2 mL
211105	Seronorm® Cardiac Acute Liq L-1B	6 x 2 mL
211205	Seronorm® Cardiac Acute Liq L-2	6 x 2 mL
211305	Seronorm® Cardiac Acute Liq L-3	6 x 2 mL
212005	Seronorm® Cardiac Acute Lyo L-1A	6 x 2 mL
212105	Seronorm® Cardiac Acute Lyo L-1B	6 x 2 mL
212205	Seronorm® Cardiac Acute Lyo L-2	6 x 2 mL
212305	Seronorm® Cardiac Acute Lyo L-3	6 x 2 mL

Stability

	Shelf life	Open vial stability	
Liquid	≤ -20 °C	≤ -20 °C	2-8 °C
	3 years **	1 month ***	14 days **

	Shelf life	Open vial stability	
Lyophilized	2-8 °C	≤ -20 °C	2-8 °C
	3 years **	1 month Δ	14 days **

** With a few exceptions
*** When refrozen within 30 minutes
Δ When reconstituted and frozen within 30 minutes

Seronorm® CRP Liquid

Straight from the fridge into the instrument



Analytes

CRP

Refer to the lot specific product documentation of currently available lots for specific analyte and stability claims. For details concerning intended use, please refer to the Instructions for Use (IFU). The documents are available on our website www.sero.no or upon request.

Main features	Benefits
Exceptional Quality	Based on 100% human serum, ensuring a quality control for reliable CRP-testing.
Convenient Storage	Storage at 2-8 °C allows easy handling straight from the fridge. Seven days short-term storage at room temperature possible.
Ready-to-Use	No thawing or reconstitution necessary, facilitating seamless integration into daily lab operations.
Extended Stability	Offers 1-month stability in opened vials at 2-8 °C, reducing waste and increasing efficiency.
Clinically Relevant	Available in three clinically relevant levels.

Stability

Shelf life	Open vial stability	
2-8 °C	2-8 °C	15-25 °C
5 years	31 days	7 days

Order Information

Art. no	Product	Size
213005	Seronorm® CRP Liquid L-1 ΔΔ	12 x 1 mL
213105	Seronorm® CRP Liquid L-2 ΔΔ	12 x 1 mL
213205	Seronorm® CRP Liquid L-3 ΔΔ	12 x 1 mL

ΔΔ Not available in the US

Seronorm® Human

Multi-component control with long shelf life



Analytes

ALAT
Albumin
ALP
Amylase, pancreas
Amylase, total
Apolipoprotein A1
Apolipoprotein B
ASAT
Bile Acid
Bilirubin, direct
Bilirubin, total
Calcium
Chloride
Cholesterol, HDL
Cholesterol, LDL
Cholesterol, total
Cholinesterase
CK
CK-MB
Copper
Creatinine
CRP
Digoxin
GGT
GLDH
Glucose
HBDH
IgA
IgG
IgM
Iron
Lactate
LDH
Lipase
Lithium
Magnesium
NEFA
Osmolality
Phosphorus
Potassium
Protein, total
Sodium
Theophylline
Transferrin
Triglycerides
UIBC
Urea
Uric Acid
Zinc

Refer to the lot specific product documentation of currently available lots for specific analyte and stability claims. For details concerning intended use, please refer to the Instructions for Use (IFU). The documents are available on our website www.sero.no or upon request.

Main features	Benefits
Broad Coverage	A multi-component assayed control covering a wide range of analytes on clinical chemistry platforms.
Authentic Composition	Composed of human serum without any preservatives or stabilizers, ensuring natural sample conditions for accurate testing.
Extensive Documentation	Comes with detailed product documentation, providing assigned values for over 45 analytes, including genuine lipids, routine clinical chemistry analytes, enzymes, proteins, cardiac markers, and therapeutic drugs.
Clinically relevant Levels	Available in two clinically relevant levels, each designed to meet specific diagnostic needs and enhance test accuracy.
Exceptional shelf life	Freeze-dried to ensure a long shelf life of up to 4 years, maximizing storage efficiency and reducing frequency of lot change.

Stability

	Shelf life	Open vial stability	
Lyophilized	2-8 °C	≤ -20 °C	2-8 °C
	4 years **	1 month Δ	10 days

Order Information

Art. no	Product	Size
200805	Seronorm® Human	10 x 5 mL
203005	Seronorm® Human High	10 x 5 mL

** With a few exceptions
Δ When reconstituted and frozen within 30 minutes

Autonorm® Clin Chem Liq

A complete chemistry control ready to use



Analytes

α1-acid-glycoprotein
α1-antitrypsin
α2-macroglobulin
ALAT
Albumin
ALP
Amikacin
Amylase, pancreas
Amylase, total
Apolipoprotein A1
Apolipoprotein B
ASAT
ASO
Bicarbonate
Bile Acid
Bilirubin, direct
Bilirubin, total
C3c
C4
Calcium
Carbamazepine
Ceruloplasmin
Chloride
Cholesterol, HDL
Cholesterol, LDL
Cholesterol, total
Cholinesterase
CK
CK-MB
Copper
Creatinine
CRP
Digoxin
Ethanol
Ferritin
Gentamycine
GGT
Glucose
Haptoglobin
IgA
IgG
IgM
Iron
Kappa Light Chain
Lactate
Lambda Light Chain
LDH
Lipase
Lithium
Magnesium
Methotrexate
Osmolality
Paracetamol
Phenobarbitone
Phenytoin
Phosphorus
Potassium
Prealbumin
Protein, total
Quinidine
Salicylate
Sodium
Theophylline
TIBC
Tobramycin
Transferrin
Triglycerides
UIBC
Urea
Urea Nitrogen
Uric Acid
Valproic Acid
Vancomycin
Zinc

Refer to the lot specific product documentation of currently available lots for specific analyte and stability claims. For details concerning intended use, please refer to the Instructions for Use (IFU). The documents are available on our website www.sero.no or upon request.

Main features	Benefits
Comprehensive Control	Includes a broad spectrum of clinical chemistry analytes, lipids, enzymes, proteins, hormones, cardiac markers and therapeutic drugs for all-encompassing testing.
Pure and Natural	Based on 100 % human serum, free from preservatives or stabilizers, mirroring patient sample conditions for authentic test results.
Ready to Use	Liquid control eliminates the need for reconstitution, reducing handling errors and simplifying workflow as it's ready to use immediately after thawing.
Tailored Levels	Available in three clinically relevant levels, each designed to meet distinct testing standards and requirements, enhancing lab accuracy and performance.
Immunoprotein Coverage	Includes key free light chains and kappa/lambda ratio for comprehensive assessment.

Stability

Shelf life	Open vial stability	
≤ -20 °C	≤ -20 °C	2-8 °C
2,5 years **	1 month **Δ	14 days **

Order Information

Art. no	Product	Size
201915	Autonorm® Clin Chem Liq L-1	12 x 5 mL
202115	Autonorm® Clin Chem Liq L-2	12 x 5 mL
202215	Autonorm® Clin Chem Liq L-3	12 x 5 mL

** With a few exceptions
Δ When refrozen within 30 minutes

Seronorm® Paediatric

Specially made for the newborn



Analytes

ALP
Bilirubin, direct
Bilirubin, indirect
Bilirubin, total
Calcium
Chloride
Glucose
Magnesium
Phosphorus
Potassium
Sodium

Refer to the lot specific product documentation of currently available lots for specific analyte and stability claims. For details concerning intended use, please refer to the Instructions for Use (IFU). The documents are available on our website www.sero.no or upon request.

Main features	Benefits
Specialized Design	Specially crafted accuracy control serum for newborn testing.
Pure and natural	Based on 100% human serum, free from preservatives or stabilizers.
Extensive Documentation	Comes with comprehensive product documentation, ensuring analytical data for all analytes.
Exceptional shelf life	Freeze-dried to ensure a long shelf life of up to 4 years, maximizing storage efficiency and reducing frequency of lot change.

Stability

	Shelf life	Open vial stability	
Lyophilized	2-8 °C	≤ -20 °C	2-8 °C
	4 years	1 month Δ	10 days

Order Information

Art. no	Product	Size
208005	Seronorm® Paediatric ΔΔ	6 x 3 mL

Δ When reconstituted and frozen within 30 minutes
ΔΔ Not available in the US

Seronorm® Urine

Analytes

Albumin/Creatinine quota
Amylase
Calcium
Chloride
Cortisol, free
Creatinine
Glucose
Magnesium
Microalbumin
Osmolality
pH
Phosphorus
Potassium
Pregnancy
Protein, total
Sodium
Specific gravity
Urea
Uric Acid

Refer to the lot specific product documentation of currently available lots for specific analyte and stability claims. For details concerning intended use, please refer to the Instructions for Use (IFU). The documents are available on our website www.sero.no or upon request.



Main features	Benefits
Convenient and Ready	Liquid, ready to use straight from the fridge, simplifies the workflow and saves time.
Detailed Documentation	Documentation comes with assayed values for frequently used instruments, ensuring wide applicability.
Flexible Testing Options	Available in two clinically relevant levels to accommodate various testing needs and standards.
Excellent Open Vial Stability	Offers 31 days of stability in opened vials, minimizing waste and enhancing usability over extended periods.

Stability

Shelf life	Open vial stability
2-8 °C	2-8 °C
2 years	31 days **

Order Information

Art. no	Product	Size
208505	Seronorm® Urine L-1	10 x 8 mL
208605	Seronorm® Urine L-2	10 x 8 mL

Liquid

** With a few exceptions

Seronorm® HbA1c Liquid

Analytes

HbA1c

Refer to the lot specific product documentation of currently available lots for specific analyte and stability claims. For details concerning intended use, please refer to the Instructions for Use (IFU). The documents are available on our website www.sero.no or upon request.



Main features	Benefits
Ready to Use	Liquid eliminates the need for reconstitution, ready to use immediately after thawing, reducing handling errors.
Extensive Documentation	Comes with detailed documentation providing assayed values suitable for both immunological and Point of Care (PoC) methods.
Clinical Relevance	Available in two clinically relevant levels to match the needs of diverse testing scenarios.
Enhanced Stability	Demonstrates good stability in opened vials, maintaining effectiveness over time.
Produced through in vitro glycation of human blood	Highly ethical product without any use of blood from diabetic patients.

Stability

Shelf life	Open vial stability
≤ -20 °C	2-8 °C
3 years	31 days

Order Information

Art. no	Product	Size
209005	Seronorm® HbA1c Liquid L-1 ΔΔ	3 x 1 mL
209105	Seronorm® HbA1c Liquid L-2 ΔΔ	3 x 1 mL

ΔΔ Not available in the US

Seronorm® Trace Elements Serum

The clinically most relevant elements

Aluminium
Calcium
Chromium
Cobalt
Copper
Fluoride
Iron
Lithium
Magnesium
Manganese
Mercury
Nickel
Phosphorus
Potassium
Selenium
Sodium
Zinc

Refer to analyte index (page 30) for a total of more than 60 elements.

Refer to the lot specific product documentation of currently available lots for specific elements and stability claims. For details concerning intended use, please refer to the Instructions for Use (IFU). The documents are available on our website www.sero.no or upon request.



Main features	Benefits
Application Diversity	Perfect for a wide array of applications, from environmental health to veterinary studies.
Robust Documentation	Analytical values supplied for over 60 elements.
Pure and Natural	Based on 100% human serum, free from preservatives and stabilizers, mirroring patient samle conditions for accurate control of trace elements analysis.
Unmatched Traceability	Values are independently verified and traceable to international standards.
Clinical Relevance	Two levels for essential elements, catering to diagnostic needs.
Extended Stability	Freeze-dried material ensures exceptional shelf life and stability.

Stability

Lyophilized

Shelf life	Open vial stability	
2-8 °C	≤ -20 °C	2-8 °C
7 years	1 month Δ	7 days

Order Information

Art. no	Product	Size
201405	Seronorm® Trace Elements Serum L-1	6 x 3 mL
203105	Seronorm® Trace Elements Serum L-2	6 x 3 mL
201413	Seronorm®Trace Elements Serum L-1 RUO ***	6 x 3 mL
203113	Seronorm® Trace Elements Serum L-2 RUO ***	6 x 3 mL

Δ When reconstituted and frozen within 30 minutes

*** The Trace Elements RUO products (Research Use Only) are not intended for use for medical in vitro diagnostic purposes. For questions related to this, please contact your distributor or SERO.

Seronorm® Trace Elements Whole Blood

The clinically most relevant elements

Aluminium
Antimony
Arsenic
Beryllium
Bismuth
Cadmium
Calcium
Chromium
Cobalt
Copper
Fluoride *
Iodine
Lead
Lithium
Magnesium
Manganese
Mercury
Methyl Mercury
Molybdenum
Nickel
Selenium
Silver
Strontium
Thallium
Tin
Vanadium
Zinc

Refer to analyte index (page 30) for a total of more than 60 elements.

Refer to the lot specific product documentation of currently available lots for specific elements and stability claims. For details concerning intended use, please refer to the Instructions for Use (IFU). The documents are available on our website www.sero.no or upon request.



Main features	Benefits
Application Diversity	Perfect for a wide array of applications, from environmental health to veterinary studies.
Robust Documentation	Analytical values supplied for over 60 elements and compounds.
Pure and Natural	Based on 100% human whole blood, free from preservatives and stabilizers, mirroring patient samle conditions for accurate control of trace elements analysis.
Unmatched Traceability	Values are independently verified and traceable to international standards.
Clinical Relevance	Three levels for essential elements, catering to diagnostic needs.
Extended Stability	Freeze-dried material ensures exceptional shelf life and stability.

Stability

Lyophilized

Shelf life	Open vial stability	
2-8 °C	≤ -20 °C	2-8 °C
5 years	1 month Δ	7 days

Order Information

Art. no	Product	Size
210105	Seronorm® Trace Elements Whole Blood L-1	10 x 3 mL
210205	Seronorm® Trace Elements Whole Blood L-2	10 x 3 mL
210305	Seronorm® Trace Elements Whole Blood L-3	10 x 3 mL
210113	Seronorm® Trace Elements Whole Blood L-1 RUO ***	10 x 3 mL
210213	Seronorm® Trace Elements Whole Blood L-2 RUO ***	10 x 3 mL
210313	Seronorm® Trace Elements Whole Blood L-3 RUO ***	10 x 3 mL

* Only present in L-2 and L-3
Δ When reconstituted and frozen within 30 minutes

*** The Trace Elements RUO products (Research Use Only) are not intended for use for medical in vitro diagnostic purposes. For questions related to this, please contact your distributor or SERO.

Seronorm® Trace Elements Urine

The clinically most relevant elements

Aluminium	Chromium	Lead	Selenium
Antimony	Cobalt	Magnesium	Tellurium
Arsenic	Copper	Manganese	Thallium
Beryllium	Fluoride *	Mercury	Tin
Bismuth	Iodine	Molybdenum	Vanadium
Cadmium	Iron	Nickel	Zinc

Refer to analyte index (page 30) for a total of more than 60 elements.

Refer to the lot specific product documentation of currently available lots for specific elements and stability claims. For details concerning intended use, please refer to the Instructions for Use (IFU). The documents are available on our website www.sero.no or upon request.



Main features	Benefits
Application Diversity	Perfect for a wide array of applications, from environmental health to veterinary studies.
Robust Documentation	Analytical values supplied for over 60 elements.
Pure and Natural	Based on 100% human urine, free from preservatives and stabilizers, mirroring patient samle conditions for accurate control of trace elements analysis.
Unmatched Traceability	Values are independently verified and traceable to international standards.
Clinical Relevance	Two levels for essential elements, catering to diagnostic needs.
Extended Stability	Freeze-dried material ensures exceptional shelf life and stability.

Stability

Lyophilized

Shelf life	Open vial stability	
2-8 °C	≤ -20 °C	2-8 °C
7 years	1 month **	7 days

Order Information

Art. no	Product	Size
210605	Seronorm® Trace Elements Urine L-1	10 x 5 mL
210705	Seronorm® Trace Elements Urine L-2	10 x 5 mL
210613	Seronorm® Trace Elements Urine L-1 RUO ***	10 x 5 mL
210713	Seronorm® Trace Elements Urine L-2 RUO ***	10 x 5 mL

* Only in L-2
Δ When reconstituted and frozen within 30 minutes

*** The Trace Elements RUO products (Research Use Only) are not intended for use for medical in vitro diagnostic purposes. For questions related to this, please contact your distributor or SERO.

Autonorm® Pharmaca Liq

"A pharmacy in a bottle..."

Pharmaceuticals

Amikacin	Gentamycine	Paracetamol	Topiramate
Carbamazepine	Haloperidol	Phenobarbitone	Valproic acid
Clonazepam	Lamotrigine	Phenytoin	Vancomycin
Cyclosporine	Levetiracetam	Teicoplanin	Zonisamide
Diazepam	Lithium	Theophylline	
Digoxin	Methotrexate	Tobramycin	

Refer to the lot specific product documentation of currently available lots for specific analyte and stability claims. For details concerning intended use, please refer to the Instructions for Use (IFU). The documents are available on our website www.sero.no or upon request.



Main features	Benefits
Pure and Natural	Based on 100% human serum without any preservatives or stabilizers.
Ready-to-Use Convenience	Liquid control eliminates the need for reconstitution, reducing potential handling errors and is immediately usable after thawing.
Clinically Relevant	Available in two distinct levels to support accurate therapeutic monitoring and drug compliance testing.
Independent QC material	Provides an objective assessment of the entire analytical system.

Stability

Shelf life	Open vial stability	
≤ -20 °C	≤ -20 °C	2-8 °C
3 years **	1 month Δ	7 days

Order Information

Art. no	Product	Size
211705	Autonorm® Pharmaca Liq L-1	12 x 3 mL
211805	Autonorm® Pharmaca Liq L-2	12 x 3 mL

** With a few exceptions
Δ When refrozen within 30 minutes

Our mission

SERO’s mission is to improve patient care by contributing to analyses that produce reliable and comparable results from one day to another and between laboratories.



Analyte index
A – B

See page number	Seronorm® Immunoassay 12	Seronorm® Immunoassay Liq low 14	Seronorm® Cardiac Acute 15	Seronorm® Immunoprotein 16	Seronorm® CRP Liquid 17	Seronorm® Human 18	Autonorm® Clin Chem Liq 19	Seronorm® Paediatric 20	Seronorm® Urine 21	Seronorm® HbA1c Liquid 22	Seronorm® Trace Elements Serum 23	Seronorm® Trace Elements Whole Blood 24	Seronorm® Trace Elements Urine 25	Autonorm® Pharmaca Liq 26
17-α-OH-Progesterone	O	O												
25(OH) Vitamin D	O	O												
α1-acid-glycoprotein				O			O							
α1-antitrypsin				O			O							
α2-macroglobulin				O			O							
AFP	O													
ALAT						O	O							
Albumin				O		O	O							
Albumin/Creatinine quota									O					
Aldosterone	O	O												
ALP						O	O	O						
Aluminium Al											O	O	O	
AMH	O													
Amikacin							O							O
Amylase, pancreas						O	O							
Amylase, total						O	O		O					
Androstenedione	O	O												
Anti-CCP				O										
Antimony Sb											O	O	O	
Anti-Tg	O													
Anti-TPO	O													
Apolipoprotein A1				O		O	O							
Apolipoprotein B						O	O							
Arsenic As											O	O	O	
ASAT						O	O							
ASO				O			O							
β2-microglobulin	O			O										
β-hCG, total	O		O											
Barium Ba											O	O	O	
Beryllium Be											O	O	O	
Bicarbonate							O							
Bile Acid						O	O							
Bilirubin, direct						O	O	O						
Bilirubin, indirect								O						
Bilirubin, total						O	O	O						
Bismuth Bi											O	O	O	
BNP			O											
Bromine Br											O	O	O	

O Analyte present ■ Present in L-1 ▲ Present in L-2

The above index is updated as of September 2025

Analyte index
C – D

See page number	Seronorm® Immunoassay 12	Seronorm® Immunoassay Liq low 14	Seronorm® Cardiac Acute 15	Seronorm® Immunoprotein 16	Seronorm® CRP Liquid 17	Seronorm® Human 18	Autonorm® Clin Chem Liq 19	Seronorm® Paediatric 20	Seronorm® Urine 21	Seronorm® HbA1c Liquid 22	Seronorm® Trace Elements Serum 23	Seronorm® Trace Elements Whole Blood 24	Seronorm® Trace Elements Urine 25	Autonorm® Pharmaca Liq 26
C3				O										
C3c				O			O							
C4				O			O							
CA 125	O													
CA 15-3	O													
CA 19-9	O													
Cadmium Cd											O	O	O	
Calcium Ca						O	O	O	O		O	O	O	
Carbamazepine							O							O
CEA	O													
Cerium Ce											O	O	O	
Ceruloplasmin				O			O							
Cesium Cs											O	O	O	
Chloride						O	O	O	O					
Cholesterol, HDL						O	O							
Cholesterol, LDL						O	O							
Cholesterol, total						O	O							
Cholinesterase						O	O							
Chromium Cr											O	O	O	
CK			O			O	O							
CK-MB	O		O			O	O							
Clonazepam														O
Cobalt Co											O	O	O	
Copper Cu						O	O				O	O	O	
Cortisol	O	O												
Cortisol, free									O					
C-peptide	O													
Creatinine						O	O		O					
CRP			O	O	O	O	O							
Cyclosporine														O
Cystatin C				O										
DHEA-Sulfate	O													
Diazepam														O
D-dimer			O											
Digitoxin				O										
Digoxin	O		O			O	O							O
Dysprosium Dy											O	O	O	

O Analyte present ■ Present in L-1 ▲ Present in L-2

The above index is updated as of September 2025

Analyte index
E – I

See page number	Seronorm® Immunoassay 12	Seronorm® Immunoassay Liq low 14	Seronorm® Cardiac Acute 15	Seronorm® Immunoprotein 16	Seronorm® CRP Liquid 17	Seronorm® Human 18	Autonorm® Clin Chem Liq 19	Seronorm® Paediatric 20	Seronorm® Urine 21	Seronorm® HbA1c Liquid 22	Seronorm® Trace Elements Serum 23	Seronorm® Trace Elements Whole Blood 24	Seronorm® Trace Elements Urine 25	Autonorm® Pharmaca Liq 26
Electrophoresis				■										
EPO	O													
Erbium Er											O	O	O	
Estradiol	O													
Ethanol							O							
Europium Eu											O	O	O	
Ferritin	O	O		O			O							
Fluoride F											O	●	▲	
Folate	O													
FSH	O													
Gadolinium Gd											▲	O	O	
Gallium Ga											O	O	O	
Gentamycine							O							O
GGT						O	O							
GLDH						O								
Glucose						O	O	O	O					
Gold Au											O	O	O	
Hafnium Hf											O	O	O	
Haptoglobin				O			O							
Haloperidol														O
HbA1c										O				
HBDH						O								
hCG, total	O		O											
HE4	O													
hGH	O													
Holmium Ho											O	O	O	
Homocysteine	O		O											
IgA				O		O	O							
IgE	O	O		O										
IGFBP-3	O													
IGF1	O													
IgG				O		O	O							
IgM				O		O	O							
IL-6			O											
Insulin	O													
Iodine I											O	O	O	
Iridium Ir											O	O	O	
Iron Fe						O	O				O	O	O	

O Analyte present ■ Present in L-1 ▲ Present in L-2 ● Present in L-2 and L-3 *The above index is updated as of September 2025*

Analyte index
L – Prea

See page number	Seronorm® Immunoassay 12	Seronorm® Immunoassay Liq low 14	Seronorm® Cardiac Acute 15	Seronorm® Immunoprotein 16	Seronorm® CRP Liquid 17	Seronorm® Human 18	Autonorm® Clin Chem Liq 19	Seronorm® Paediatric 20	Seronorm® Urine 21	Seronorm® HbA1c Liquid 22	Seronorm® Trace Elements Serum 23	Seronorm® Trace Elements Whole Blood 24	Seronorm® Trace Elements Urine 25	Autonorm® Pharmaca Liq 26
Kappa Light Chain							O							
Lactate						O	O							
Lambda Light Chain							O							
Lamotrigine														O
Lanthanum La											O	O	O	
LDH						O	O							
Lead Pb											O	O	O	
Levetiracetam														O
LH	O													
Lipase						O	O							
Lithium Li						O	O				O	O	O	O
Lutetium Lu											O	O	O	
Magnesium Mg						O	O	O	O		O	O	O	
Manganese Mn											O	O	O	
Methylmercury												O		
Mercury Hg											O	O	O	
Methotrexate							O							O
Methylmalonic acid	O													
Microalbumin									O					
Molybdenum Mo											O	O	O	
Myoglobin	O		O	O										
NEFA						O								
Neodymium Nd											O	O	O	
Nickel Ni											O	O	O	
Niobium Nb											O	O	O	
NT-proBNP	O		O											
Osmolality						O	O		O					
Ostase	O													
Paracetamol							O							O
pH									O					
Phenobarbitone							O							O
Phenytoin							O							O
Phosphorus P						O	O	O	O		O	O	O	
Platinum Pt											O	O	O	
Potassium K						O	O	O	O		O	O	O	
Praseodymium Pr											O	O	O	
Prealbumin				O			O							

O Analyte present ■ Present in L-1 ▲ Present in L-2 *The above index is updated as of September 2025*

Analyte index
Preg – Te

See page number	Seronorm® Immunoassay 12	Seronorm® Immunoassay Liq low 14	Seronorm® Cardiac Acute 15	Seronorm® Immunoprotein 16	Seronorm® CRP Liquid 17	Seronorm® Human 18	Autonorm® Clin Chem Liq 19	Seronorm® Paediatric 20	Seronorm® Urine 21	Seronorm® HbA1c Liquid 22	Seronorm® Trace Elements Serum 23	Seronorm® Trace Elements Whole Blood 24	Seronorm® Trace Elements Urine 25	Autonorm® Pharmaca Liq 26
Pregnancy									O					
Progesterone	O													
Procalcitonin			O											
Prolactin	O													
Prostatic acid phosphatase	O													
Protein, total				O		O	O		O					
PSA, complexed	O													
PSA, free	O													
PSA, total	O	O												
PTH, intact	O													
RF				O										
Rhenium											O	O	O	
Rubidium Rb											O	O	O	
S-100β			O											
Samarium Sm											O	O	O	
Selenium Se											O	O	O	
SHBG	O													
Silver Ag											O	O	O	
Sodium Na						O	O	O	O		O	O	O	
Specific gravity									O					
Strontium Sr											O	O	O	
Sulfur S											O	O	O	
T3, free	O													
T3, total	O													
T4, free	O	O												
T4, total	O	O												
Tantalum Ta											O	O	O	
TBG	O													
Teicoplanin														O
Tellurium Te											O	O	O	
Terbium Tb											O	O	O	
Testosterone	O	O												

O Analyte present ■ Present in L-1 ▲ Present in L-2

The above index is updated as of September 2025

Analyte index
Th – Z

See page number	Seronorm® Immunoassay 12	Seronorm® Immunoassay Liq low 14	Seronorm® Cardiac Acute 15	Seronorm® Immunoprotein 16	Seronorm® CRP Liquid 17	Seronorm® Human 18	Autonorm® Clin Chem Liq 19	Seronorm® Paediatric 20	Seronorm® Urine 21	Seronorm® HbA1c Liquid 22	Seronorm® Trace Elements Serum 23	Seronorm® Trace Elements Whole Blood 24	Seronorm® Trace Elements Urine 25	Autonorm® Pharmaca Liq 26
Thallium Tl											O	O	O	
Theophylline	O					O	O							O
Thorium Th											O	O	O	
Thulium Tm											O	O	O	
Thyreoglobulin	O													
TIBC							O							
Tin Sn											O	O	O	
Tobramycin							O							O
Topiramate														O
Transferrin				O		O	O							
Triglycerides						O	O							
Troponin I	O		O											
Troponin T	O		O											
TSH	O	O												
UIBC						O	O							
Uranium U											O	O	O	
Urea						O	O		O					
Uric Acid						O	O		O					
Valproic Acid							O							O
Vanadium V											O	O	O	
Vancomycin							O							O
Vitamin B12	O	O												
Ytterbium Yb											O	O	O	
Yttrium Y											O	O	O	
Zinc Zn						O	O				O	O	O	
Zirconium Zr											O	O	O	
Zonisamide														O

O Analyte present ■ Present in L-1 ▲ Present in L-2

The above index is updated as of September 2025

SERO's mission is to improve patient care by contributing to analyses that produce reliable and comparable results from one day to another, and between laboratories.

Our core values:

We are ethical
Our ethical values are reflected in everything we do, from the purchase of raw materials to how we maintain customer relations.

We are dedicated
We are proud to be a knowledge-driven company with highly competent staff dedicated to producing controls of the highest quality.

We are flexible
We have short decision lines that give us flexibility and allow us to focus on our customers' needs.

SERO's products are available in more than 50 countries through an international network of specialized distributors. For additional product details, please contact your local distributor (please see our website for contact information). No local distributor? Please contact us directly:

+47 66 85 89 00 or
seronorm@sero.no

Interested in distributing SERO's products in your country? We would be happy to receive your application.
Learn more about SERO at www.sero.no

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2025 Edition

Our products are under continous development.
Updated information can be found on our website.

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