



PRODUCT LIST FOR
VETERINARY LABORATORIES



Dear customer,

BioSystems is a Spanish company committed since 1981 with research, manufacturing and commercialization of a wide variety of instruments and reagents of utmost quality and superb features, intended for clinical and agri-food laboratories.

Our extensive experience in different areas of knowledge allows us to create better reagent systems and instruments, with advanced technology and best quality standards, following the own legislation and policies of the sector.

Building on our teamwork and interest in new markets and business units, and being conscious about how important are companion animals in our families, BioSystems adapts its product line for the veterinary laboratory.

From small veterinary centres to laboratories of high complexity, we offer solutions specifically designed to make easier your workflow, with a wide product catalogue focused on in vitro veterinary diagnostics and selected for their high performance.

We hope to be your trusted partner for the next years.

Kind regards,

Dr. Antonio Elduque
CEO
BioSystems S.A.

Summary

Product Line for Vet Laboratories

Clinical Chemistry

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Biochemistry Reagents and ranges

BioSystems S.A. manufactures a wide range of reagents for the clinical diagnosis covering the most used biochemistry profiles in a veterinary laboratory.

Reagent	Range
URIC ACID	mg/dL
Canine	0-2
Feline	0-1
TOTAL BILE ACIDS	μmol/L
Canine	0-5 fast 0-25 postprandial
Feline	0-5 fast 0-20 postprandial
ALANIN AMINOTRANSFERASE (ALT/GPT)	μmol/L
Canine	0-5 fast 0-25 postprandial
Feline	0-5 fast 0-20 postprandial
ALBUMIN	g/L
Canine	26-33
Feline	21-33
α-AMYLASE	g/L
Canine	26-33
Feline	21-33
AMMONIA	μmol/L
Canine	11,2-70,4
Feline	0-52,8
ASPARTATE AMINOTRANSFERASE (AST/GOT)	U/L
Canine	23-66
Feline	26-43
β-HIDROXIBUTIRATE	mmol/L
Bovine	<1,0 Dairy cattle <0,6 Non dairy cattle
TOTAL BILIRUBIN	mg/dL
Canine	0,1-0.5
Feline	0,15-0.5
DIRECT BILIRUBIN	mg/dL
Canine	0,06-0.12
Feline	0-0.1
CALCIUM	mg/dL
Canine	9-11.3
Feline	6,2-10,2

Reagent	Range
CHOLESTEROL	mg/dL
Canine	135-270
Feline	95-130
CHOLINESTERASE	U/L
Canine	1895-5240
Feline	736-3016
CREATINE KINASE	U/L
Canine	52-368
Feline	68-214
CREATININE	mg/dL
Canine	0.5-1.5
Feline	0.8-1,8
CARBON DIOXIDE	mmol/L
Canine	17-24
Feline	17-24
ACID PHOSPHATASE	U/L
Canine	5-25
Feline	0,5-24
ALKALINE PHOSPHATASE	U/L
Canine	20-156
Feline	25-93
PHOSPHORUS	mg/dL
Canine	2.9-5.3
Feline	3-6.1
FRUCTOSAMINE	mmol/L
Canine	0.17-0,34
Feline	0,22-0,35
GLUCOSE	mg/dL
Canine	65-118
Feline	73-134
GGT	U/L
Canine	1,2-6,4
Feline	1,3-5,1
IRON	μg/dL
Canine	30-180
Feline	68-215

Reagent	Range
LACTATE	mg/dL
Canine	8,64-23,78
Feline	3,33-25,29
LACTATE DEHYDROGENASE (LDH)	U/L
Canine	45-233
Feline	63-273
LIPASE	UI/L
Canine	13-200
Feline	8-83
MAGNESIUM	mg/dL
Canine	1.8-2.4
Feline	1.7-2.6
MICROALBUMIN	mg/L
Canine	<10
Feline	<10
PROTEIN (URINE+LCR)	mg/L
Canine	URINE: <300 CSF: <250-300
Feline	URINE: <300 CSF: <250-300
TOTAL PROTEIN	g/L
Canine	54-71
Feline	54-78
TRIGLYCERIDES	mg/dL
Canine	20-112
Feline	10-114
UREA	mg/dL
Canine	10-28
Feline	20-30
ZINC	µg/dL
Canine	50-150
Feline	50-150



Biochemistry Controls

Product	Code	Quantity	Level	Components
Biochemistry serum	18009	5 x 5 mL	Level I	ACP, Albumin, ALP, ALT/GPT, AST/GOT, α-Amylase, Direct and Total bilirubin, Total Bile Acids, Calcium, Chloride, Cholesterol, CK, Creatinine, Glucose, γ-GT, Iron, LDH, Lipase, Magnesium, Phosphorus, Potassium, Protein Total, Sodium, Triglycerides, Urea, Uric acid and Zinc
	18010	5 x 5 mL	Level II	
Fructosamine	18057	1 x 1 mL	Level I	Fructosamine
Urine Control	18054	1 x 5 mL	Level I	Albumin, α-Amylase, Calcium, Chloride, Creatinine, Glucose, Magnesium, Phosphorus, Potassium, Sodium, Urea and Uric acid.
	18066	1 x 5 mL	Level II	
Ammonia and CO ₂	18063	3 x 5 mL	Level I	Ammonia and Carbon Dioxide
	18064	3 x 5 mL	Level II	
Zinc	18053	1 x 1 mL		Zinc

Biochemistry Calibrators

Product	Code	Quantity	Components
Biochemistry (Bovine)	18011	5 x 5 mL	ACP, Albumin, ALP, ALT/GPT, AST/GOT, α-Amylase, Total Bilirubin, Calcium, Cholesterol, Chloride, CK, Creatinine, Direct Bilirubin, Iron, LDH, Lipase, Glucose, γ-GT, Magnesium, Phosphorus, Potassium, Protein Total, Sodium, Total Bile Acids, Triglycerides, Urea, Uric acid and Zinc.
Albumin (Microalbuminuria)	31130	1 x 1 mL	Albumin in urine (microalbuminuria - MAU)
Ammonia and CO ₂	18065	2 x 5 mL	Ammonia and Carbon Dioxide
Bilirubin	11513	1 x 5 mL	Bilirubin
Protein (Urine)	11603	1 x 5 mL	Proteine (Urine)

External Quality Control

PREVECAL

International External Quality Assessment Scheme

- Yearly program for the comparison of results between laboratories.
- Monthly measurements of different control materials.
- The final report summarises all monthly reports and shows additional data on performance and capability.
- 6-sigma quality management for the assessment for each measurement procedure of the laboratory.
- On-line participation through (www.prevecal.net)

Product	Code	Presentation	Components
Prevecal Biochemistry (Bovine)	18027	12 x 5 mL	ACP, Albumin, ALP, ALT/GPT, AST/GPT, α-Amylase, Total bilirubin, Calcium, Chloride, Cholesterol, Cholinesterase, CK, Creatinine, Glucose, γ-GT, Iron, LDH, Lipase, Magnesium, Phosphorus, Potassium, Protein, Sodium, Triglycerides, Urea and Uric acid.

Consumables

Product	Code	Presentation	Description
Bottles (50 mL)	B011493	10 u.	Reagent Bottles A15/A25
Bottles (20 mL)	B011494	10 u.	Reagent Bottles A15/A25
Opaque Bottles (50 mL)	B011442	10 u.	Reagent Bottles A15/A25
Bottles (60 mL)	AC16362	10 u.	Reagent Bottles BA200/400
Bottles (20 mL)	AC16363	10 u.	Reagent Bottles BA200/400
Opaque Bottles (60 mL)	AC16364	10 u.	Reagent Bottles BA200/400
Opaque Bottles (20 mL)	AC16365	10 u.	Reagent Bottles BA200/400

Biochemistry Instruments

All the Biosystems's instruments are optimized to work with the dedicated reagents reaching proved trustworthy results with a minimal manipulation from the user.



SEMI-AUTOMATIC ANALYSER LED TECHNOLOGY

Semiautomatic analyzer with a new optical system with leds of low consumption and high durability.

- LED configuration: 340, 405, 505, 535, 560, 600, 635, 670 nm, (optional: 450 nm).
- Monochromatic and Bi-coloured reading.
- Volume of programmable aspiration from 100µl up to 5 ml.
- Automatic adjustment of sample volume.
- Automatic adjustment of sample positioning.
- Integrated Thermal printer.
- LCD graphic display.
- Durable, humidity proof Hard Coated Filters.
- Battery Power Pack (2hrs)-OPTIONAL (AC14773). Possible to use it only with battery.
- Photometric Range 0.0-3.5A for all wavelengths.
- Flow Cuvette 18 µL (macro, semi-micro and micro cuvette).
- Calibration by Factor, single calibrator or calibration curve.
- Maximum power of 30 W. (minimal energy consumption).
- USB Port to export data (results and graphs).
- Lowest maintenance.
- Dimensions: 420 x 350 x 216 mm.
- Weight: 4 kg.

Biochemistry Instruments



A15

RANDOM ACCESS ANALYZER

Being the smallest of the automatic analysers of BioSystems, the A15 offers to the veterinary laboratory a speed of 150 test/hour in a compact instrument of easy managing.

- Throughput of 150 test/hour.
- Continuous loading of samples during working session (STAT samples).
- Innovative design and functional robustness.
- Low water consumption, less than 0.5 L/ hour.
- Real prozone detection function.
- Primary tubes and paediatric vials in any position.
- Maximum flexibility in the positioning of samples and reagents (4 interchangeable racks).
- Minimum reading volume of 180 ml.
- Clinical Chemistry and Turbidimetry dedicated reagents.
- Filter configuration 340, 405, 505, 535, 560, 600, 635, 670 nm (adaptable).
- 20 refrigerated reagents positions (optional).
- Dimensions: 840x670x615 mm.
- Weight: 45 kg.

Biochemistry Instruments



With a speed of 250 test/hour and refrigeration of reagents, the A25 is perfect for the veterinary laboratories of medium size.

- Throughput of 250 tests/hour.
- Clinical Chemistry and Turbidimetry dedicated reagents.
- 30 refrigerated positions by 20 and 50 mL reagents bottles.
- Flexibility in positioning with polyvalent (sample and reagent) racks.
- Real prozone detection function.
- Unlimited STAT capabilities. Run at any time.
- Minimum reading volume of 180 µl.
- Filter configuration 340, 405, 505, 535, 560, 600, 635, 670 nm (adaptable).
- Automatic conditioning of fluid system.
- Dimensions: 1080x695x510 mm.
- Weight: 73 kg.

Biochemistry Instruments



BA200
LED TECHNOLOGY

Desktop Analyzer of high capacity (200 test/hour), the BA200 provides a great flexibility of distribution of samples and reagents, to adapt to all veterinarian needs.

- STAT and Routine Laboratories Benchtop Random Clinical Chemistry Analyzer.
- Dynamic Baseline with SMART LED Technology.
- High reagent and sample capacity (88 positions), the highest grade in flexibility.
- Barcoded dedicated reagents.
- Highly accurate dispensing.
- 120 - cuvette rotor with washing station.
- Compact system with low maintenance.
- ISE module, Na⁺, K⁺, Cl⁻ (optional).
- Real 200 t/h, even with bi-reagent reactions. (267 test/hour including ISE module).
- Dimensions: 1077 x 690 x 680 mm.
- Weight: 166 kg.

Biochemistry Instruments



BA400
LED TECHNOLOGY

Instrument of high capacity (400 test/hour), the **BA400** defines a new generation of clinical analyzers with optical system LED and intelligent functionality that offers the best performance for large size veterinary laboratories.

- Throughput of 400 test/hour (Clinical Chemistry and Turbidimetry). 320 test/hour including ISE module.
- Optical system based on LED technology that ensures unlimited lifetime avoiding lamp replacement and improving sensitivity.
- Photometric range up to 3.5 Abs and optical resolution of 0.0001 Abs.
- Capacity up to 135 sample positions (90 samples with barcode).
- 88 Cooling reagents on board (5 - 8°C) by 20 and 60 ml dedicated reagent bottles.
- Easy STAT samples positioning.
- Non fixed positions for samples, control, calibrator and STAT.
- Barcode readers for sample and reagents.
- ISE module, Na⁺, K⁺, Cl⁻, Li⁺ (optional).
- Minimal user maintenance.
- Less than 14 L/h water consumption and energy-efficient management 500 VA).
- Capacity to fully integrate into LIS (ASTM, HL7).
- Compact system with no peripherals (external bottles, pumps/compressors, weighing scales, additional tubes, etc.).
- Dimensions: 1077 x 690 x 680 mm.
- Weight: 166 kg.

Semi-Automated Coagulometers



The semiautomated coagulometers of 1, 2 and 4 channels include methods programmed for PT, APTT, TT and FIBRINOGEN, are prepared for the daily use, offering in an easy way, highly trustworthy results.

- Prepared for the daily routine and the upcoming requirements.
- High quality in the results.
- Nearly maintenance free.
- Colour touch panel.

COA X

Consumables

Product	Code	Presentation	Description
PT	61001	4 x 5 mL	Reagent for determination of Prothrombin Time
APTT	61009	4 x 4 mL + 1 x 16 mL	Reagent for determination of Activated Partial Thromboplastin time
FIB	61002	4 x 2 mL	Reagent for determination of Fibrinogen
IMIDAZOL	61003	4 x 15 mL	Diluent for samples for determination of Fibrinogen
TT	61000	4 x 3 mL	Reagent for determination of Thrombin Time
Control I	61007	4 x 1 mL	Control level 1 for PT, APTT, FIB and TT
Control II	61008	4 x 1 mL	Control level 2 for PT, APTT, FIB and TT
Calibrator	61006	4 x 1 mL	Calibrator for PT and FIB



Biochemistry Profiles

Profiles	Basic	General	Comprehensive	Geriatric	Hepatic	Complete Hepatic	Renal	Complete Renal	Metabolic	Pre Anaesthetic	Pancreatic	Birds	Horses	Reptiles
Uric Acid												●		●
Bile Acids			●	●	●	●			●			●		●
Albumin	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ALT/GPT	●	●	●	●	●	●			●	●	●		●	●
Amylase		●				●					●			
AST/GOT		●		●	●	●			●	●	●	●	●	●
Bilirubin		●		●	●	●			●				●	
Calcium		●	●	●				●	●		●	●		●
Chloride		●					●	●						
Cholesterol		●	●	●	●	●		●	●		●	●		●
Cholinesterase												●		
CK		●		●					●			●	●	●
Creatinine	●	●	●	●			●	●	●	●	●		●	
Alkaline Phosphatase	●	●	●	●	●	●			●	●	●		●	
Phosphorus		●	●	●			●	●					●	●
Fructosamine				●					●					
Gamma GT					●	●							●	●
Globulines	●	●	●	●	●	●		●	●	●	●	●	●	●
Glucose	●	●	●	●	●	●		●	●	●	●	●		●
Iron		●				●			●				●	
LDH						●						●	●	●
Lipase		●				●					●			
Potassium		●	●	●			●	●	●			●		●
Total Protein	●	●	●	●	●	●		●	●	●	●	●	●	●
Sodium		●		●			●	●				●		●
Triglycerids		●		●		●			●		●			
Urea	●	●	●	●	●	●	●	●	●	●	●		●	●



Ginper Group



BioSystems

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- Certified Management System
- EN ISO 9001
- EN ISO 13485