Optimization and flexibility

BioSystems

A15 Clinical Chemistry Analyser

Clinical analysis

human - centred biotech


We have come a long way
to provide a simple solution
for laboratory automation.

A15
BioSystems

Building usability

Efficiency in lab Automation

A15 is a small size and low demanding analyser that facilitates automation of tests, reducing working time and improving the laboratory efficiency.

Easy to handle and flexible system

Its low maintenance and an easy to use software make A15 a very adaptable system, contributing to solve user needs.

Reliable validated system

Dedicated and validated reagents ensure a robust and reliable analytical system.

Durability over time

With a long history on the market, we still find new niches or applications to explore.

Systemic solutions

A long history of collaboration with users to improve this analyser, together with a complete panel of clinical chemistry reagents, make A15 system a perfect option for different size laboratories. It adapts to user needs in laboratories implementing their first automated system, in laboratories looking for dedicated special tests analysers or any other segment.

With more that 8000 analysers worldwide, we can offer a wide experience in Customer Support, not only responding to users requests but also developing new reagents and solutions validated under the same european brand.

Our main focus is to satisfy our users requirements and strive to exceed their technical, economical and human expectations. We are committed to provide the best possible user experience.

Scientific & Technical Support

Remote Assistance

Personalised Support

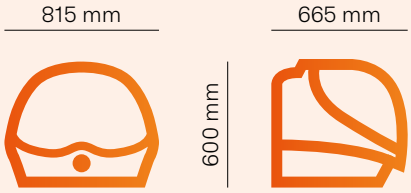
Technical Specifications

Highlights

- Optimal onboard capacity for refrigerated and non-refrigerated reagents.
- High flexibility for positioning different sample and reagents containers.
- Optimal reagent standardization for effective use of consumables.
- Intuitive system with seamless connection to LIS.
- Up to 150 tests per hour.
- Filter configuration adapted to all biochemistry reactions (340, 405, 505, 535, 560, 600, 635, 670 nm +1 additional filter can be added by user).
- Consistent prozone detection function.
- Reduced reaction volume up to 180 µL.
- Open user configuration of test parameters.
- Repetition with automatic pre-dilution and post-dilution possibilities.
- Sustainable design with low water consumption (less than 0.5 L/hour).

Ordering Information

Item	Code	Quantity
A15 analyser	83105	-
A15C analyser, with cooling system for 20 refrigerated reagents positions	83105C	-
Concentrated system liquid	BO11524	1000 mL
Concentrated washing solution	BO13416	100 mL
Reaction rotor	AC11485	10 units
Sample wells (pediatric cups)	AC10770	1000 units
Reagent bottles 50 mL + caps	BO11493	10 units
Reagent bottles 20 mL + caps	BO11494	10 units
Amber reagent bottles 50 mL + caps	BO13442	10 units



Throughputs

Throughput	150 t/h

Sample handling

Positions for racks (reagents or samples)	4 (reagents or samples) or 2 in A15C
Rack samples capacity	24 sample positions/rack
Maximun capacity of samples	72 or 48 in A15C
Barcode reader	External
Size of primary tubes	Size of primary tubes Ø 13 mm or 15 mm (max. height 100 mm)
Sample well Diameter	13 mm
Sample types	Serum, plasma, urine, whole blood, cerebrospinal liquid, semen and biological fluids
Dispensing pump	Ceramic pump of high durability
Dispensing tip	Stainless Steel 110 mm
Level detection	Capacitative
Sample pipetting volume	From 2 µL to 80 µL
Pipetting resolution	0.1 µL
Predilution ratio	From 1:2 to 1:200
Clot detector	No
Tip wash	Inside and outside

Reagent handling

Volume of reagent bottles	20 mL, 50 mL
Number of reagents per reagent rack	10 bottles of 20 or 50 mL
Cooled reagent	Yes in A15C. 20 reagents max.
Temperature range of refrigerator	10ºC below room temperature (at 25ºC)
R1 volume	10 µL to 550 µL
R2 volume	10 µL to 200 µL
Dispensing mode	Ceramic pump without maintenance
Pipetting resolution	1 µL
Tip wash	Inside and outside

Reactions rotor

Reaction volume range	From 180 µL to 800 µL
Number of wells	120
Well material	UV methacrylate
Type of incubation	Dry without maintenance
Temperature	37.0 °C
Temperature accuracy	±0.2 °C

Optical System

Light Source	Halogen lamp (6V, 10W)
Lightpath	6 mm
Wavelengths	340 - 405 - 505 - 535 - 560 - 600 - 635 - 670 nm (+1 additional filter can be added by user)
Wavelenght accuracy	±2 nm
Spectral range	340 - 900 nm
Photometric range	-0.05 to 3.0 A
Photometric detection system	Silicon photodiode
Internal resolution	<0.0001 A
Baseline stability	Max. 0.004 A, 30 minutes at 505 nm

Size and weight

Size (w., d., h.)	815 x 665 x 600 mm
Weight	45 Kg

Electrical and Environmental Requirements

Mains voltage	115 to 230 V
Mains frequency	50 or 60 Hz
Electric power	150 VA (200 VA A15C)
Ambient temperature	From 10 to 35°C
Relative humidity	<75%
Altitude	<2500 m

Fluidic Requirements

System liquid solution bottle volume	3 L
Washing solution bottle volume	3 L
Waste solution bottle volume	3 L

Minimum Computer Requirements

Operating system	Windows® 10 64 bit (x64)
CPU	Equivalent to Intel Core i3 @3.10 GHz or higher
RAM	512 MB
Hard Disk	20 GB or higher
Monitor minimum resolution	800x600
Connector of serial channel	USB

Laboratory Information Systems (LIS)

Connectivity to LIS	Yes

Regulatory Compliance

IVD - CE	Regulation (EU) 2017/746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12510

A15 Reagents

Test	Code	RA	RB	mL/Kit	Comments
α-AMYLASE DIRECT *Alpha-GLUCOSIDASE*	12522	2 x 20 mL	2 x 5 mL	50	Std Inc
α-AMYLASE-EPS *IFCC*	12535	1 x 32 mL	1 x 8 mL	40	WR
α-AMYLASE PANCREATIC *Immunoinhibition*	12799	1 x 40 mL	1 x 10 mL	50	
α-GLUCOSIDASE NEW *Glucose oxidase/Peroxidase*	12522	2 x 20 mL	2 x 5 mL	50	Std Inc
ADENOSINE DEAMINASE (ADA) *Adenosine-Glutamate Dehydrogenase*	12754	4 x 8 mL	1 x 10 mL	40	WR
ALANINE AMINOTRANSFERASE (ALT/GPT) *IFCC*	12533	5 x 40 mL	5 x 10 mL	250	WR
ALBUMIN *Bromocresol Green*	12547	5 x 50 mL	-	250	
ALBUMIN (MICROALBUMINURIA) *Latex*	13324	1 x 40 mL	1 x 10 mL	50	WR
ALKALINE PHOSPHATASE (ALP)-AMP *AMP Buffer (IFCC)*	12518	5 x 16 mL	2 x 10 mL	100	WR
ALKALINE PHOSPHATASE (ALP)-DEA *DEA Buffer*	12514	5 x 16 mL	2 x 10 mL	100	WR
AMMONIA *Glutamate Dehydrogenase*	12532	1 x 20 mL	1 x 7 mL	27	RA
ANGIOTENSIN CONVERTING ENZYME (ACE) *FAPGG*	12796	1 x 50 mL	-	50	
ANTI-STREPTOLYSIN O (ASO) *Latex*	13923	1 x 40 mL	1 x 10 mL	50	WR
ASPARTATE AMINOTRANSFERASE (AST/GOT) *IFCC*	12531	5 x 40 mL	5 x 10 mL	250	WR
β-HYDROXYBUTYRATE *Hydroxybutyrate Dehydrogenase/Diaphorase*	12525	1 x 40 mL	1 x 10 mL	50	
BILIRUBIN (DIRECT) DPD *Dichlorophenyl Diazonium*	12504	5 x 40 mL	5 x 10 mL	250	
BILIRUBIN (TOTAL) DPD *Dichlorophenyl Diazonium*	12506	5 x 40 mL	5 x 10 mL	250	
CALCIUM-ARSENAZO *Arsenazo III*	12570	10 x 50 mL	-	500	

WR: Working Reagent / **RA:** Reagent A Preparation / **RB:** Reagent B Preparation / **Std Inc:** Standard Included

Test	Code	RA	RB	mL/Kit	Comments
CALCIUM-CRESOLPHTHALEIN *O-Cresolphthalein Complexone*	12513	5 x 40 mL	5 x 10 mL	250	
CARBON DIOXIDE (CO_2) *Phosphoenolpyruvate Carboxylase/Malate Dehydrogenase*	11558	1 x 50 mL	-	50	
CERULOPLASMIN NEW *Turbidimetry*	13340	1 x 40 mL	1 x 10 mL	50	
CHOLESTEROL LDL DIRECT [TOOS] NEW *Direct TOOS*	12785	3 x 20 mL	1 x 20 mL	80	
CHOLESTEROL HDL DIRECT [TOOS] NEW *Direct TOOS*	12757	3 x 20 mL	1 x 20 mL	80	
CITRATE *Citrate Lyase/ Malate Dehydrogenase*	11895 11795	1 x 20 mL 2 x 20 mL	1 x 5 mL 2 x 5 mL	25 50	RB + Std Inc RB + Std Inc
COMPLEMENT COMPONENT C3 *Turbidimetry*	13084	1 x 50 mL	-	50	
COMPLEMENT COMPONENT C4 *Turbidimetry*	13085	1 x 50 mL	-	50	
C-REACTIVE PROTEIN (CRP) *Latex*	13921	2 x 40 mL	2 x 10 mL	100	WR
C-REACTIVE PROTEIN hs (CRP-hs) *Immunoturbidimetric latex assay, High Sensitivity*	13927	1 x 40 mL	1 x 10 mL	50	WR
CREATINE KINASE (CK) *IFCC*	12524	3 x 12 mL	1 x 10 mL	45	WR
CREATINE KINASE-MB (CK-MB) *Immunoinhibition*	12566	3 x 12 mL	1 x 10 mL	45	WR
CREATININE *Jaffé-compensated*	12502	5 x 50 mL	5 x 50 mL	500	WR
CREATININE ENZYMATIC *Enzymatic*	12734	1 x 45 mL	1 x 15 mL	60	
ETHANOL *Alcohol Dehydrogenase*	12789	1 x 20 mL	1 x 7 mL	27	
FERRITIN *Latex*	13934	1 x 30 mL	1 x 15 mL	45	WR
FIBRINOGEN *Turbidimetry*	13600	1 x 40 mL	1 x 10 mL	50	
FRUCTOSE *Hexokinase/ Phosphoglucose Isomerase*	11794	1 x 40 mL	1 x 10 mL	50	Std Inc, WR
γ-GLUTAMYL TRANSFERASE (γ-GT) *IFCC*	12520	5 x 40 mL	5 x 10 mL	250	WR
GLUCOSE *Glucose Oxidase/ Peroxidase*	12503	10 x 50 mL	-	500	
GLUCOSE-6-PHOSPHATE DEHYDROGENASE NEW *Glucose-6-Phosphate*	12603	1 x 40 mL	1 x 10 mL	50	Std Inc

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Test	Code	RA	RB	mL/Kit	Comments
GLUCOSE-HEXOKINASE *Hexokinase*	12756	2 x 40 mL	2 x 10 mL	100	
HAPTOGLOBIN NEW *Turbidimetry*	13218	1 x 40 mL	1 x 10 mL	50	
HEMOGLOBIN A1C-DIRECT (HbA1C-DIR) *Latex*	13047	1 x 50 mL	1 x 10 mL	60	
HOMOCYSTEINE *Enzymatic Cycling*	12737	1 x 40 mL	1 x 10.8 mL	50.8	
IMMUNOGLOBULIN A (IgA) *Turbidimetry*	13082	1 x 50 mL	-	50	
IMMUNOGLOBULIN G (IgG) *Turbidimetry*	13081	1 x 50 mL	-	50	
IMMUNOGLOBULIN M (IgM) *Turbidimetry*	13083	1 x 50 mL	-	50	
IRON-FERROZINE *Ferrozine*	12509	5 x 40 mL	5 x 10 mL	250	
LACTATE *Lactate Oxidase/ Peroxidase*	12736	2 x 40 mL	2 x 10 mL	100	
LACTATE DEHYDROGENASE (LDH) *Pyruvate*	12580	5 x 40 mL	5 x 10 mL	250	WR
LACTATE DEHYDROGENASE (LDH)-IFCC *IFCC*	11586	1 x 40 mL	1 x 10 mL	50	WR
LIPASE NEW *DGGR*	12760	1 x 20 mL	1 x 10 mL	30	
MAGNESIUM *Xylidyl Blue*	12797 23797	5 x 16 mL 1 x 60 mL	2 x 10 mL 1 x 15 mL	100 75	WR
NON-ESTERIFIED FATTY ACIDS (NEFA) NEW *Acyl-CoA Oxidase/Peroxidase*	12540	2 x 20 mL	2 x 7 mL	54	RA, RB
OXALATE *Oxalate Oxidase/Peroxidase*	12539	1 x 20 mL	1 x 5 mL	1 x 25 mL R1 + 20 tubes (pretreatment reagent)	Std Inc, RB
PHOSPHORUS *Phosphomolybdate/UV*	12508	3 x 24 mL	2 x 15 mL	100	
PROTEIN (TOTAL) *Biuret*	12500	10 x 50 mL	-	500	
PROTEIN (URINE+CSF) *Pyrogallol Red*	12501	5 x 50 mL	-	250	Std Inc
RHEUMATOID FACTORS (RF) *Latex*	13922	1 x 40 mL	1 x 10 mL	50	

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Test	Code	RA	RB	mL/Kit	Comments
TOTAL BILE ACIDS *Enzymatic Cycling*	12551	1 x 18 mL	1 x 6 mL	24	Std Inc
TRANSFERRIN *Turbidimetry*	13091	1 x 50 mL	-	50	
TRIGLYCERIDES *Glycerol Phosphate Oxidase/Peroxidase*	12528	10 x 50 mL	-	500	
UNSATURATED IRON BINDING CAPACITY (UIBC) *Ferrozine*	12835	1 x 40 mL	1 x 10 mL	50	
UREA/ BUN-UV *Urease/ Glutamate Dehydrogenase*	12516	5 x 40 mL	5 x 10 mL	250	WR
URIC ACID *Uricase/Peroxidase*	12521	10 x 50 mL	-	500	
ZINC *Bromo-PAPS*	12526	2 x 20 mL	1 x 10 mL	50	Std Inc, RA
PROTEIN (URINE+CSF) *Pyrogallol Red*	12501	5 x 50 mL	-	250	Std Inc
RHEUMATOID FACTORS (RF) *Latex*	13922	1 x 40 mL	1 x 10 mL	50	
TOTAL BILE ACIDS *Enzymatic Cycling*	12551	1 x 18 mL	1 x 6 mL	24	Std Inc
TRANSFERRIN *Turbidimetry*	13091	1 x 50 mL	-	50	
TRIGLYCERIDES *Glycerol Phosphate Oxidase/Peroxidase*	12528	10 x 50 mL	-	500	
UNSATURATED IRON BINDING CAPACITY (UIBC) *Ferrozine*	12835	1 x 40 mL	1 x 10 mL	50	
UREA/ BUN-UV *Urease/ Glutamate Dehydrogenase*	12516	5 x 40 mL	5 x 10 mL	250	WR
URIC ACID *Uricase/Peroxidase*	12521	10 x 50 mL	-	500	
ZINC *Bromo-PAPS*	12526	2 x 20 mL	1 x 10 mL	50	Std Inc, RA

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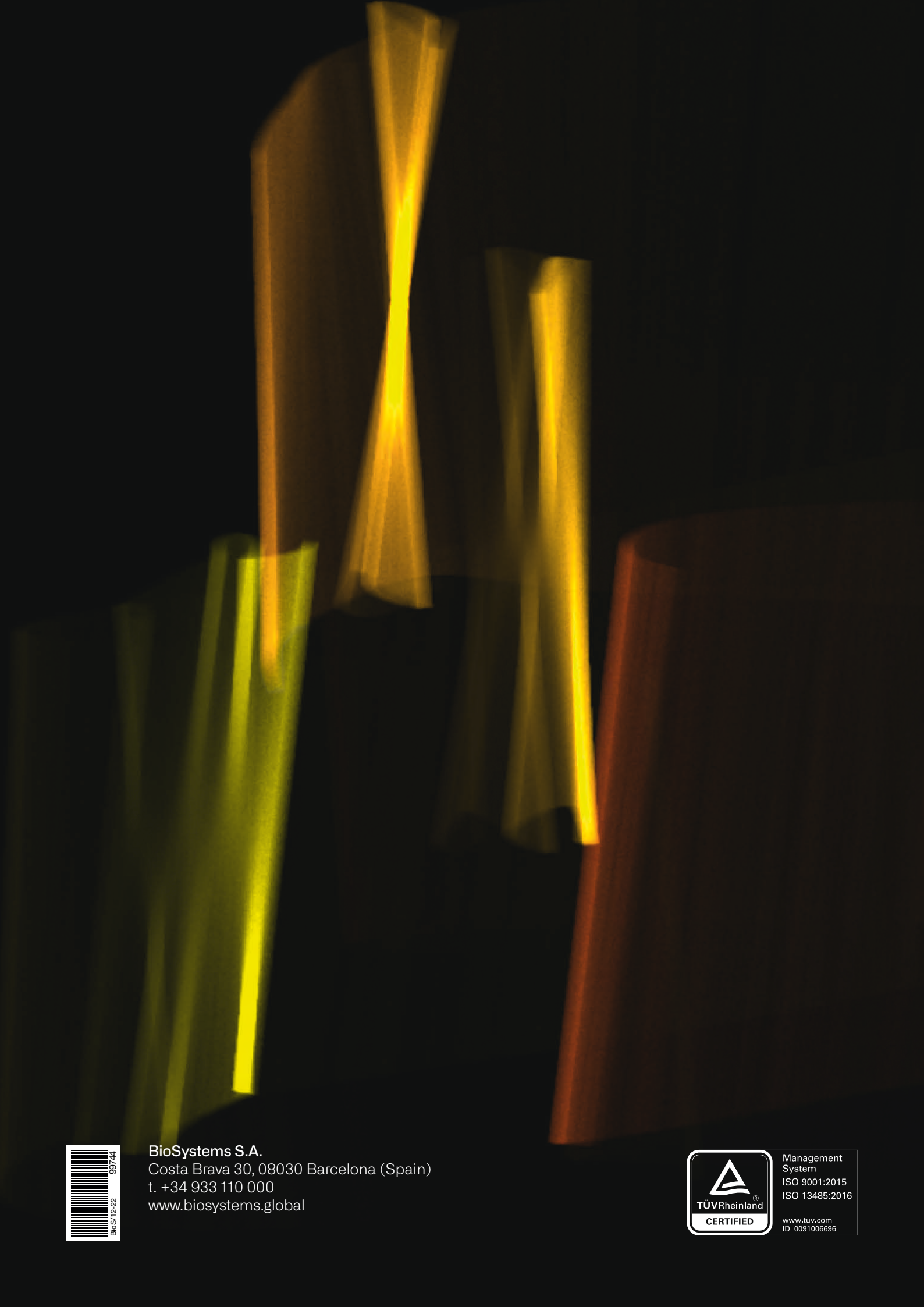
A15 system: a partner you can depend on



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