

## LIFE SCIENCE

## SUPPORTING YOUR RESEARCH



















Labconsult is an independent distributor that supports leading laboratories in the selection and supply of scientific accessories and instrumentation.

It is our mission to provide every lab with scientific expertise and innovative solutions.



#### Over 25 years of experience

With over 25 years of experience and extensive market knowledge, we have built up an impressive portfolio of products, services and solutions to cover the needs of laboratory and production facilities.



#### Providing highly innovative Lab Equipment and Services

At Labconsult we only offer Products & Services we believe in, all carefully selected to meet your needs. We are dedicated to develop and maintain long term relationships. This dedication allows us to continuously add real value to both our customers and suppliers. A great cooperation for everyone's success.



#### ISO9001 certified

Being ISO 9001 certified, we embrace the concept of quality through continual improvement. We aim to enhance customer satisfaction and consistently provide products that meet customer and regulatory requirements.



#### Flexible, reliable and around-the-clock

Based in Brussels and Ghent, we are able to service the whole Benelux on a flexible, reliable and round-the-clock way. A fast and professional attitude is our commitment to you.



#### **Dedicated Team**

We have assembled a dedicated team by combining experienced individuals with young and innovative thinking minds. Both the technical know-how of our Application Engineers as well as the scientific knowledge of our Product Specialists make them indispensable in our team.

## Labconsult Life Science Portfolio

Labconsult offers a comprehensive portfolio of life science products: reagents, labware, consumables and instrumentation.

This brochure gives you a global overview of available product groups, a list of most suppliers we represent and the most popular products highlighted.

Our website www.labconsult.be shows our complete product portfolio, detailed product information, pricing and much more. You can search your product by description, article number or CAS number.

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## -OMICS TECHNOLOGIES



# Sample preparation kits for RNA, DNA, and protein purification



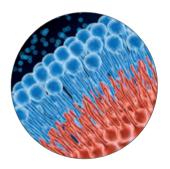
## I DNA Purification Kits

Genomic DNA, urine, blood, plasma, serum, plant and environmental, FFPE, clean-up, endotoxins, plasmid DNA, and food DNA purification

- Genomic DNA Purification Kits
- · DNA Clean-Up Kits
- FFPE DNA Extraction and Purification
- Blood/Plasma/Serum Sample Preparation Kits
- Stool Purification
- Food DNA Isolation Kits
- DNA, RNA, microRNA, and Proteins Sequentially from one sample
- Plant and Environmental DNA Purification Kits
- Urine DNA Purification Kits
- Endotoxin Removal Kits
- Plasmid Purification Kits
- Saliva and Sputum DNA Isolation Kits









## I RNA Purification Kits

Total RNA, microRNA, in vitro transcription, RNA/DNA/Proteins from the same sample, plant and environmental, FFPE, cytoplasmic RNA and nuclear RNA, stool purification

- Total RNA Extraction and Purification (including microRNA)
- Clean-Up and Concentration of microRNA and Total RNA
- FFPE RNA and microRNA Extraction and Purification
- Blood/Plasma/Serum Sample Preparation Kits
- Stool Purification
- Isolate RNA, microRNA, DNA and Proteins from the Same Sample
- Plant and Environmental RNA and microRNA Isolation and Purification
- Urine RNA and microRNA Isolation and Purification
- Cytoplasmic and Nuclear RNA and microRNA Purification

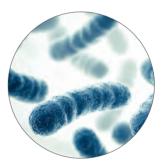


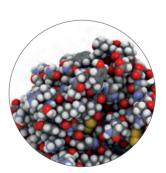


## I Protein Purification Kits

Inclusion body, protein reagents, endotoxin removal, protein clean-up, abundant serum depletion, on-column proteolytic digestion, and urine protein purification

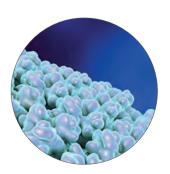
- Inclusion Body Protein Purification
- Protein, DNA, RNA and microRNA Sequentially from the Same Sample
- Reagents
- Endotoxin Removal
- · Protein Clean-Up, Concentration and Buffer Exchange
- Depletion of Abundant Serum Proteins
- On-Column Proteolytic Digestion
- Urine Protein Purification Kits





## Virus Purification Kits

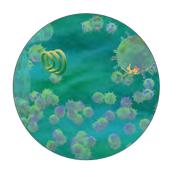
Rapid and simple concentration and purification of AAV vectors from cell lysates and/or cell culture media



## I Exosome Purification and RNA Isolation Kits

Urine and plasma/serum exosomal isolation kits

- Intact Exosome Purification
- RNA Isolation from Exosomes purified using Norgen's Exosome Purification kits
- Intact Exosome Purification and RNA isolation (combination kits)
- Exosomal and Free-Circulating RNA Fractionation Kits
- Exosome depletion (FBS Fetal Bovine Serum)



## I miRNA Sequencing Kits

Small RNA library preparation kits for NGS on an Illumina platform

- Simple and quick workflow. Library preparation in less than 5 hours
- No gel purification for selected types of samples
- Complements Norgen's Best-in-Class Total RNA (including microRNA)
   Purification Technology
- Protocol optimized for RNA isolated from different types of input, including liquid biopsies (blood, plasma, serum and urine)



## I Sample Collection and Preservation Kits

- Stool Collection and Preservation Kits

  Preserve microbiota profiles for unbiased, reproducible results
- Urine Collection and Preservation Kits Longest stability at room temperature
- cf-DNA/cf-RNA Preservation
   cf-DNA & cf-RNA Stabilization and Isolation for Liquid Biopsy Applications including NIPT and NGS
- Saliva Collection, Preservation and Isolation
   6 years of saliva DNA preservation at room temperature
- Swab Collection and Preservation Easy to use swab-based collection
- Milk DNA Preservation and Isolation
   An all-in-one procedure for the preservation and isolation of milk





## **Specimen Collection Cards**



## I GenReleaz™ collection cards

#### Fast and efficient recovery of DNA

Ahlstrom-Munksjö GenReleaz™ and GenReleaz™ Color specimen collection cards allow long term preservation at ambient temperature combined with fast elution of DNA from biological fluids.

#### The card is made of

- Cotton fiber-based material with pure and absorbent fibers
- Chemical treatment with a chaotropic salt that lyses cells and denatures proteins upon contact. DNA is released and stabilized inside the fibers.
- Inert indicated purple dye for visualization of colorless sample



#### Key features of GenReleaz™

- · Microvolume sampling of biosamples
- Long-term ambient preservation of DNA
- Fast and simple DNA elution
- Bactericidal activities
- DNAse, RNAse free
- Compliant with ISO 18385:2016



## **Homogenizing Equipment**



## I Bead Ruptor 24 Elite

Omni Bead Ruptor 24 Elite Bead Mill Homogenizing System Includes Bead Ruptor 24 motor drive and User Manual. Bead Ruptor tube carriages and disposable tubes sold separately. The Bead Ruptor 24 Elite is the most advanced and powerful bead mill homogenizer available.

It is designed for grinding, lysing, and homogenizing biological samples prior to molecular extraction. Available with a wide range of accessories the Bead Ruptor 24 Elite enables processing of samples in volumes ranging from

0.5 mL to 50 mL.

The optional Bead Ruptor 24 Cryo Cooling Unit is designed to prevent the increase of sample temperature during the homogenization process.

The Bead Ruptor 24 Elite unique tube carriage motion coupled with sample specific bead beating materials ensure that a thorough homogenate is achieved regardless of the sample type. The high lysing efficiency of the Bead Ruptor 24 Elite results in an increase in nucleic acid, protein and small molecules yields and increases the sensitivity of the downstream assay.











	Bead Ruptor 96	Bead Ruptor 24 Elite	Bead Ruptor 12	Bead Ruptor 4
Maximum Sample Capacity	576	96	16	4
Tube Capability	0.5, 1.5, 2 mL	0.5, 1.5, 2, 7, 15, 30, 50 mL	0.5, 1.5, 2, 7 mL	0.5, 1.5, 2, 7 mL
Well Plates	<b>√</b>	-	-	-
Speed Control	3 - 30 Hz	0.8 - 8 ms	0.8 - 6 ms	1 - 5 ms
Run Time	5sec - 99min	1sec - 9.59min	1sec - 9.59min	1sec - 5min
Processing Range	25 μl - 50 mL	25 μl - 50 mL	25 µl - 7 mL	25 μl - 7 mL
Savable Protocols	-	✓	✓	-
Weight	42kg	29,5kg	29,5kg	7,5kg
Dimensions	W: 38cm, H: 43cm, L: 24cm	W: 38cm, H: 43cm, L: 33cm	W: 38cm, H: 43cm, L: 33cm	W: 25cm, H:22cm, L: 29cm
Touch Screen	-	✓	-	-

## I BR-Cryo Cooling Unit

#### For use with the Bead Ruptor 24 Elite

The BR-Cryo Cooling Unit is compatible with the Bead Ruptor 24 and is designed to prevent the increase of sample temperature during the homogenization process. Friction generated through the bead milling process generates heat that is imparted to the sample. In order to maintain a constant processing temperature during homogenization, the BR-Cryo passes chilled air (-100°C to -50°C) into the sample processing chamber and across the sample tubes to dissipate heat.

#### Product features:

- Adjustable cooling rate
- Compatible with liquid nitrogen or dry ice with ethanol
- BR-Cryo maintains sample temperatures from 4°C to ambient
- Prevent protein degradation
- Ensure RNA stability
- Prevent enzyme activation
- 1-year warranty



## I Pre-filled Bead Mill Tubes and Bulk Beads







Bead Media	Tube Size	Bead Size	Description	Quantity	Order #		Bead Rup Iompatibi		DNase/Rnase Free	Microbial DNA Free
						BR4	BR12	BR 24		
		0.1 mm	Micro-Organism Lysing Mix	50	19-621					
Glass	2 mL	0.5 mm	Tough Micro-Organism Lysing Mix	50	19-622					
		0.5 mm	Tough Micro-Organism Lysing Mix	50	19-622D					
Garnet	0.5 mL	0.15 mm	Small Volume Micro-Organism Lysing Mix	50	19-623					
dunier	2 mL	0.7 mm	Hard & Fibrous Tissue Homogenizing Mix	50	19-624					
Carbide	0.5 mL	0.25 mm	RNA Extractions, Micro-Organism & Soil Homogenizing Mix	50	19-625					
	1.5 mL	2.4 mm	Hard Tissue Grinding Mix	50	19-610					
-	2 1	2.4 mm	Hard Tissue Grinding Mix	50	19-620					
	2 mL	2.4 mm	Hard Tissue Grinding Mix	50	19-620D					
Metal	7 mL	2.4 mm	Hard Tissue Grinding Mix	50	19-670					
•			Hard Tissue Grinding Mix	50	19-6350			5 m/s		
	30 mL 2	2.4 mm	Hard Tissue Impaction Grinding Mix with 1/4" Ceramic	50	19-6350Z			5 m/s		
	0.5 mL	1.4 mm	Small Volume Soft Tissue Homogenizing Mix	50	19-626					
	1.5 mL	1.4 mm	Soft Tissue Homogenizing Mix	50	19-617			5 m/s		
		2.8 mm	Hard Tissue Homogenizing Mix	50	19-618					
		0.5 mm	Universal Microbial Griding Mix - Nuclease Free	50	19-631					
		0.5 mm	Universal Microbial Griding Mix -Nuclease and Microbial DNA Free	50	19-631D					
		0.1 mm	Universal Microbial Griding Mix - Nuclease Free	50	19-632					
	2 mL	0.1 mm	Universal Microbial Griding Mix -Nuclease and Microbial DNA Free	50	19-632D					
		1.4 mm	Soft Tissue Homogenizing Mix	50	19-627					
Ceramic		1.4 mm	Soft Tissue Homogenizing Mix	50	19-627D					
Cerannic		2.8 mm	Hard Tissue Homogenizing Mix	50	19-628					
		2.8 mm	Hard Tissue Homogenizing Mix	50	19-628D					
	7 mL	1.4 mm	Soft Tissue Homogenizing Mix	50	19-677					
	7 1112	2.8 mm	Hard Tissue Homogenizing Mix	50	19-678					
	15 mL	2.8 mm	Hard Tissue Homogenizing Mix	50	19-6158			5 m/s		
			Soft Tissue Homogenizing Mix	50	19-6357	-		5 m/s		
	30 mL	1.4 mm	Soft Tissue Impaction Homogenizing Mix with 1/4" Ceramic	50	19-6357Z			5 m/s		
	00		Hard Tissue Homogenizing Mix	50	19-6358	-		5 m/s		
		2.8 mm	Hard Tissue Impaction Homogenizing Mix with 1/4" Ceramic	50	19-6358Z			5 m/s		
	50 mL	2.8 mm	Hard Tissue Homogenizing Mix	50	19-6508			5 m/s		

Note: In addition, we offer BULK PACKAGING of **Prefilled Bead Tubes**, **Bulk Beads and Bulk Bead Mill Tubes**. This is the most economical solution for high-throughput users. Feel free to ask us for more information!

## PCR Enzymes, Master Mixes and related products



highQu qPCR master mixes are well-known for their excellent performance and ease of use with minimum optimization required. Supplied with PCR water, optimized for both common and fast cycling workflows, they convince by their early Ct values, and provide reproducible results.

## I qPCR

highQu qPCR mastermixes are based on the small molecular inhibitor technology Hot Start PCR allowing to achieve highest sensitivity and specificity under both standard and fast qPCR cycling conditions. They provide excellent results on both AT and GC rich templates, in multiplexing and guaranty rapid extension with early Ct values with minimum or no optimization.

#### ORA™ & ORA™ SEE qPCR Probe Mix

- qPCR assays based on specific probes: including TaqMan®, Molecular Beacons, Scorpions™ Probes
- Quantification of gDNA, cDNA, viral DNA, low copy number genes, gene expression analysis
- ORA™ SEE qPCR Probe Mix contains an inert blue dye for a better sample visibility and tracking
- ORA™ and ORA™ SEE qPCR Probe mixes are also available as ROX L (low ROX) and ROX H (high ROX)

#### ORA™ & ORA™ SEE qPCR Green Mix

- qPCR from gDNA, cDNA, viral DNA, low copy number genes
- Relative gene expression analysis, absolute quantification
- qPCR assays based on fluorescence of intercalating dye
- ORA™ SEE qPCR Green Mix contains an inert blue dye for a better sample visibility and tracking
- ORA™ and ORA™ SEE qPCR Green mixes are also available as ROX L (low ROX) and ROX H (high ROX)

#### ORA™ qPCR HRM Mix

High Resolution Melting analysis (HRM) is a fast and simple technique for identification of DNA sequence variations. It allows identifying single nucleotide differences by detecting minor changes in qPCR melting curves. HighQu ORA™ HRM qPCR Mix includes a proprietary intercalating saturating dye showing no inhibition for PCR. The dye has the same affinity for both AT or GC rich sequences what leads to highest accuracy in genotyping.

- Detection of sequence variations
- SNP genotyping
- Methylation analysis
- Mutation scanning

## I One Step RT qPCR

highQu 1Step RT qPCR mastermixes in combination with a blend of thermostable and extremely active Reverse Transcriptase & advanced RNase Inhibitor (RT Mix) allow for a single step one tube RT qPCR. To suit the broad instrument range the 1Step RT qPCR Probe Mixes are available in three versions – without ROX, with low or high ROX concentration.

#### 1Step RT qPCR Probe Kits

- RT qPCR assays based on specific probes: including TaqMan®, Molecular Beacons, Scorpions™ Probes
- Quantification of any RNA template (mRNA, total RNA, viral RNA), low copy number genes

### 1Step RT qPCR Green Kits

- Relative gene expression analysis, absolute quantification of any RNA template (mRNA, total RNA, viral RNA), low copy number genes
- Intercalating dye fluorescence based qPCR on instruments calibrated with low ROX conc.

## I End-point PCR Enzymes & Master Mixes

	Standard		Hot Start	Robust, Lon	g & Hot Start	High Fidelity	Direct
	ALLin™ (RED) Taq DNA polymerase	Taq DNA polymerase	ALLin™ Hot Start (HS RED) Taq Polymerase	ALLin™ RPH Polymerase	ALLin™ RPH Mastermix	ALLin™ HiFi DNA polymerase	SampleIN™ Direct PCR Kit
Fast cycling	<b>✓</b>		<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>
GC/AT rich PCR	<b>//</b>		<b>/ /</b>	<b>//</b>	<b>✓</b>	<b>/ /</b>	<b>✓</b>
Hot Start			<b>✓</b>	✓	<b>✓</b>		<b>✓</b>
High Sensitivity			<b>/ /</b>	✓	<b>✓</b>		<b>✓</b>
Fidelity vs TAQ	1x	1x	1x	5x	5x	50x	1x
Long PCR	Standard mix only			<b>/ /</b>	<b>~ ~</b>	<b>✓</b>	
Max. amplicon	6kb	5kb	6kb	35kb	35kb	10kb	5kb
High yields	<b>//</b>	<b>✓</b>	<b>✓</b>	<b>/ /</b>	<b>✓ ✓</b>	<b>✓</b>	<b>✓</b>
Direct PCR	Colony	Colony	Colony, blood, urine	Colony, blood	Colony, blood	Colony	Mouse tail, ear, blood, tissues, swab, hair
Multiplex PCR	✓		<b>✓</b> ✓	✓	✓		✓
Classical PCR		<b>/ /</b>					
Cloning	TA	TA	TA	TA	TA	Blunt	TA
Direct loading on gel	RED mix only		RED mix only				RED mix
ALLin™ Buffer* with dNTPs	Standard mix only		Standard mix only	✓		<b>✓</b>	
Mastermix	RED mix only		RED mix only		<b>✓</b>		<b>✓</b>

## I RT PCR & Reverse Transcription

	1Step RT PCR Kit	HighScriber™ Reverse Transcriptase Mix	qScriber™ cDNA Synthesis Kit
Description	One-step RT PCR in one tube	cDNA synthesis of long transcripts at elevated temperature	Unbiased cDNA synthesis for qPCR
Enhanced cDNA synthesis	<b>√</b>	✓	✓
GC rich and complex templates	<b>✓</b>	<b>✓</b>	✓
Full-length cDNA transcripts up to 15 kb		<b>√</b>	
High sensitivity	<b>✓</b>	<b>√</b>	<b>√</b>
One-step RT-PCR	<b>✓</b>		
Two-step RT-PCR		<b>√</b>	<b>√</b>
Two-step RT-qPCR		✓	<b>√</b>
RNA protection from RNases	<b>√</b>	✓	<b>√</b>

## I DNA Electrophoresis Stains

	StainIN™ RED Nucleic Acid Stain	StainIN™ GREEN Nucleic Acid Stain
Fluorescence	Red	DNA green, RNA red
Excitation max.	540nm	490nm
Emission max.	630nm	520nm and 635nm
In gel staining during agarose electrophoresis	✓	✓
Staining of PAGE during electrophoresis	✓	<b>✓</b>
Post-run staining	-	-
DNA detection sensitivity	0,3 - 0,6 ng	0,1 - 0,3 ng
UV detection	✓	<b>✓</b>
Blue light detection	-	<b>✓</b>
Used as loading dye	-	-
Cloning compatible	Yes, when UV exposure is minimal	Yes, under Blue light
Filters to use	Ethidium Bromide	SYBR® Green

## PCR Instruments and ancillary equipment



## I Eco 48 qPCR system

The Eco 48 qPCR system has the world most accurate thermal block of any qPCR system and an optical system with an ability to detect down to just 1 copy as well as being able to easily perform a 40 cycle protocol in 40 minutes utilising standard your standard chemistries.

The PCRmax Eco 48 real time PCR system is a high specification, economically priced real time thermal cycler that accommodates a unique 48-well polypropylene PCR plate utilising the same geometry as standard 384-well plates, but only 1/8 of the size.



## I AlphaCycler range

With the option for either single, dual or four block instruments throughput and scale are never a concern. The Alpha Cycler 1, 2 and 4 run an HD Quad Core Android tablet interface with features aimed to enhance the user experience and build quality to become the workhorse of any lab.

The PCRmax Alpha cyclers are developed to deliver not only the best quality data you can expect from PCRmax but also to innovate and exceed the high standards expected by the community.









## I DNA/RNA UV-cleaner boxes

DNA/RNA UV-cleaner box UVC/T-AR is designed for clean operations with DNA samples. UV-cleaner box provide protection against contamination.

UV-cleaner boxes are equipped with an open UV lamp installed in the upper hood. UV-radiation from the open lamps disinfects the working area inactivating DNA/RNA fragments during 15–30 min of exposure. A digital timer controls duration of the direct UV irradiation. A daylight lamp provides proper illumination of the working surface.

UV-cleaner boxes are equipped with a flow-type bactericidal UV cleaner–recirculator AR, which provides constant decontamination inside the box during operation.

UV cleaner-recirculator AR consists of a UV lamp, a fan and dust filters organized in a special body so that a user working with a UV-cleaner box is protected against UV light. The UV-recirculator processes 100 UV-cleaner box volumes per hour, creating permanent aseptic conditions of operation inside the box.



## **Gel Doc Imaging & Electrophoresis**



GEL company offers a complete range of GEL Systems, GEL Doc Imagers and GEL Accessories (GridCutters, Spot Pickers, Combs, Plates, Spacers, etc.)

## I Omega Imagers

## Transforming how you image gels and westerns

Our flexible gel documentation systems with a removable tablet to easily switch between applications. They are an exceptional DNA and protein imager with multiple light sources and a multi-position filter wheel.

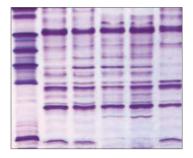


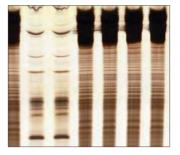
	Function	Omega Lum™ W	Omega Lum™ C	Omega Lum™ G	Omega Fluor™ Plus
	Chemiluminescent Blots	✓	✓	✓	-
Applications	Colorimetric Blots - DNA Gels - Protein Gels - X-ray film	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
	Multi-plex	✓	-	-	-
Dyes & Stains	UV/Blue-excitable fluorescence - Colorimetric / absorbance	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Excitation Sources	Epi-blue, epi-white, trans-white, trans-UV illumi- nation (dual wavelength: 302 & 365 nm)	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>√</b>
Emission Filters	Orange (590 nm)	✓	<b>✓</b>	✓	✓
	Blue (497 nm), Green (572 nm), Red (670 nm)	✓	optional	optional	optional
	Resolution	8.3 MP	8.3 MP	6.0 MP	5.0 MP
	Dynamic Range (grayscale levels)	65536	65536	65536	4096
	SmartCapture Technology™	✓	✓	<b>✓</b>	✓
	Lens	Motorized	Motorized	Fixed	Fixed
System Specifications	Cooling	Delta 50	Delta 50	Delta 40	None
	Filter Wheel	6-motorized	6-motorized	6-motorized	3-manual
	Integrated Computer (Tablet)	✓	✓	✓	<b>√</b>
	Image Capture Software	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>
	Analysis Software	<b>✓</b>	<b>✓</b>	<b>✓</b>	optional



## I Isoelectric Focusing

- SERVA Gels for Horizontal Isoelectric Focusing (IEF)
- SERVAGel<sup>™</sup> for Vertical Isoelectric Focusing (IEF)
- SERVA Protein Standards for Isoelectric Focusing (IEF)
- SERVALYT™ Carrier Ampholytes
- · Supporting Films and Fabrics for Casting Gels
- Reagents and Accessories to Cast and Run Gels
- SERVA Stains for IEF Gels





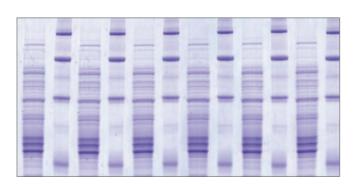
#### HPE™ BlueHorizon™ - Optimized Performance in Flatbed Gel Electrophoresis

- Compatible with all types of flatbed gel electrophoresis
- Highest resolution achieved using premium quality ceramic cooling plate
- Thin polyacrylamide gels, format up to 260 mm x 205 mm
- Broad range of precast gels for versatile applications available
- IQ/OQ/PQ qualification on request
- Technical support and workshops
- Replacement of MultiPhor II™: compatible format
- Complete range of reagents and consumables for self-casting of flatbed gels available



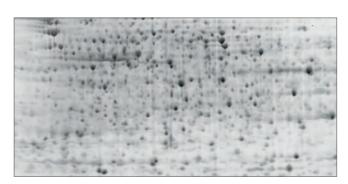
## SDS PAA Gel Electrophoresis and Native PAGE

- SERVAGel™ for Vertical SDS PAGE
- SERVA Gels for Horizontal PAGE
- Gel Media, Electrophoresis Buffers and Reagents
- SERVA Protein Stains for SDS PAGE and Native PAGE
- SERVA Protein Standards for SDS PAGE and Native PAGE



## I 2D Electrophoresis

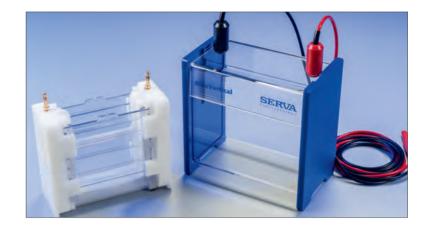
- SERVA Gels for Horizontal 2D Electrophoresis
- SERVA Gels for Vertical 2D Electrophoresis
- SERVA IPG BlueStrips
- SERVA Proteome Markers for 2D Electrophoresis
- SERVA Stains for 2D Gels



#### BlueVertical™ PRiME™

The BlueVertical™ PRiME™ is a dual mini tank system to operate one or two precast gels. It accomodates SERVAGel™ TG PRiME™, all other types of SERVAGel™ and all other commercially available precast gels with an outer cassette dimension of 10 cm x 10 cm x 0.7 cm. A casting stand and accessories for self-casting of mini vertical polyacrylamide gels are available. Separation of proteins by SDS PAGE, native PAGE and IEF can be carried out as well as separation of nucleic acids

- Superb results
- Top resolution
- Easy and safe to handle
- Unique, leak-free clamp system
- Smart design made in Germany
- For SERVAGel™ precast gels



## I Western Blotting

- Protein Standards for Western Blotting
- Reagents and Kits for Protein Transfer in Western Blotting
- Transfer Membranes for Western Blotting
- Blocking and Detection Reagents for Western Blotting

### BlueBlot™ Semi-Dry Blotter - Fast and Gentle Protein Transfer from Gel to Membrane

- · Platinum-covered steel net as anode
- Spring-mounted anode for blotting stacks
- Stainless steel plate as cathode
- Blotting area: 11 cm x 11 cm, 17 cm x 17 cm and 24 cm x 26 cm
- Deployable for thicker gels and blotting stacks

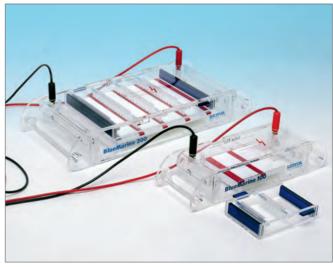
## I Nucleic Acid Electrophoresis

- Agarose Gel Media, Buffers and Reagents
- Serva Stains for Nucleic Acids
- Serva DNA Standards

#### BlueMarine™ Submarine Chambers

- Robust acrylic construction
- made in Germany
- UV transparent gel trays
- Casting gates for leak-free gel pouring





# CELL BIOLOGY & IMMUNOLOGY





## Reagents, Media, Serum for Cell Culture



## I Fetal Bovine Serum and other animal sera

#### **NEW! - FBS MSC**

PAN Biotech's "FBS MSC" is especially tested for superior growth properties on human mesenchymal stem cells (hMSC). Cells are cultures in a medium containing 10% FBS of the tested batch. By flow cytometric analysis the cultured hMSCs are then assayed and analyzed for morphology, expansion and vitality of cells. Results are compared to those of a control serum which has shown good growth on hMSCs – and only the best batches are selected for "FBS MSC"

#### Serum treatments we offer:

- Activated charcoal treated serum
- Delipidized serum
- Dialyzed serum
- Tetracycline-free serum
- Gamma irradiated serum
- Heat inactivated serum
- Ultra Low Ig Serum



## **Media**

At PAN-Biotech, perfect raw materials combined with state-of-the-art technologies guarantee a first-class quality of our media. We produce Alpha MEM, BME, CMRL 1066 Medium, DMEM, Glasgow MEM (BHK21), Ham's, IMDM, Joklik MEM, Leibovitz's L 15 Medium, McCoy's 5A Medium, MCDB 131 Medium, Medium 199, MEM, RPMI, William's Medium E, etc.

Media are as standard available in bottles of 100, 500, and 1000 ml. We produce lots from 10 L up to 1000 L. Production takes place exclusively in our cleanroom facilities in Germany, certified ISO 9001 and ISO 13485.



PAN Biotech offers a broad range of liquid media in 2D bags, including standard media as well as special media according to customers' formulations. The single-use bags are specially designed for use in biotechnology and diagnostics. The layer contacting the product of our 2D Single-Use-Bags consists of ethyl vinyl acetate (EVA).



PAN Biotech offers a broad range of liquid media in 3D bags, including standard media as well as special media according to customers' formulations. The single-use bags are specially designed for use in biotechnology and diagnostics with Ultra-low Density Polyethylene (ULDPE).

## I Reagents and Biologicals for use in cell culture

- Enzymes for cell dissociation
- · Antibiotics and antifungal drugs
- Media supplements
- Attachement Factors
- BSA/HSA
- Amino Acids and Vitamins

- Cryo preservation
- Buffered Salt Solutions
- Separating Solutions
- Cytokines and growth factors
- Chemokines



## Featured product Collagenase NB

Collagenase, obtained from Clostridium histolyticum, is an enzyme used for in vitro tissue dissociation and thus for isolation of many different types of cells.

Providing different quality levels of Collagenase NB ensures that the specific requirements related to cell isolation from different tissues and for different applications can be met. The use of a cell type-specific Collagenase NB grade ensures isolation of vital cells with a high yield. Production is compliant with current GMP and TSE guidelines (EMA/410/01 Rev. 3).





## Featured product LEVO Plus Pipet Filler

- Compatible with most of the plastic and glass pipettes from 0.1 -100mL
- Eight speeds of selection for aspiration and dispensing different liquids
- Large LCD display showing low battery warning and speed settings
- Enables single-handed operation with minimum effort
- · Light and ergonomic design providing easy usability
- High capacity Li-ion battery enable long runtime of operation
- Powerful pump fills a 25mL pipette in <5 seconds
- 0.45µm replaceable hydrophobic filter
- Rechargeable during use



## Featured product

## **Aspirator with Trap flask - FTA-2i**

The device can be applied for routine operations: removal of alcohol, buffer or culture medium from different recipients. The aspirator operation principle is based on creating negative pressure in a trapping flask using a built-in microcompressor. Liquid is removed from the reaction vessel when the collecting tip is in contact with the solution. The collecting tip is connected to the autoclavable trapping flask with polyethylene tubing.











# Antibodies, Labeling & Detection systems for biological science



## I Immunohistochemistry

#### Making IHC as easy as ABC

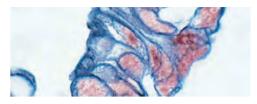
Vector Laboratories is your resource for premium labeling and detection products at each step of your IHC workflow.



#### Avidin-Biotin Complex (ABC)-Based Detection

Our reliable and economical VECTASTAIN® ABC Systems have come to be a mainstay product in immunohistochemistry laboratories.





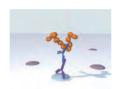
Tumor:  $\cdot$  p53 (m), VECTASTAIN® Elite® ABC Kit, Vector® NovaRED™ (red)  $\cdot$  Cytokeratin (s), VECTASTAIN® Elite® ABC Kit, Vector® SG (blue-gray).

#### **Polymer-Based Detection**

ImmPRESS Polymer Reagents consist of unique micropolymers of highly active peroxidase or alkaline phosphatase enzyme attached to highly cross-adsorbed, affinitypurified secondary antibodies. This micropolymer conjugation technology allows a higher density of enzymes per antibody to bind to the target with minimal steric interference.



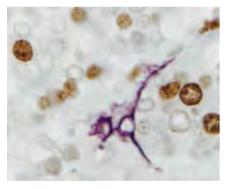
1 Add Primary Antibody



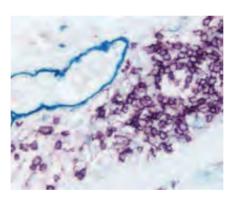
2 Add ImmPRESS™ Reagent



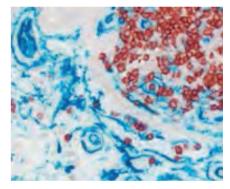
3 Add Enzyme Substrate



Breast Carcinoma: • Ki67 (rm), ImmPRESS® Reagent (HRP; Universal), Vector® DAB (brown) • CD34, ImmPRESS® Reagent (HRP; Universal), Vector® VIP (purple).



Colon: • M2A antigen (m), VECTASTAIN® ABC-AP Kit (Universal), Vector® Blue (blue) • CD20 (m), ImmPRESS® Reagent (HRP; Universal), Vector® VIP (purple)



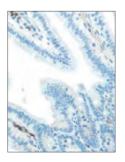
Colon: • CD3 (rm), ImmPRESS® Reagent (HRP) Anti-Rabbit IgG, ImmPACT™ AMEC Red • CD34 (m), ImmPRESS®-AP Anti-Mouse IgG Reagent, Vector® Blue (blue).

#### Featured product

#### Mouse on Mouse (M.O.M.®) Immunodetection Kits

Solutions when your primary antibody is the same species as your specimen.

- Reduces endogenous mouse Ig staining using mouse primary antibodies on mouse tissue
- Simple protocols
- Eliminates tedious calculations
- Eliminates primary antibody prebinding steps
- Clear, crisp, specific staining of antigens of interest
- Compatible with fluorescent or enzyme-based detection
- Available with or without enzyme or fluorochrome





Mouse intestine stained with standard anti-mouse IgG polymer system (left) and Vector M.O.M. ImmPRESS HRP Polymer Kit (right). Brown signal indicates IgG background staining. (Both: No primary antibody, Vector DAB stain, hematoxylin counterstain.)

#### Featured product

#### ImmEdge™ Hydrophobic Barrier Pen

The ImmEdge<sup>™</sup> Pen is a hydrophobic barrier (PAP) pen for immunohistochemistry and in situ hybridization. It provides a water-repellent barrier that keeps reagents localized on tissue specimens and prevents mixing of reagents when multiple sections are mounted on the same slide.



VectaFluor™ DyLight® R.T.U. Secondary

VECTASHIELD® HardSet™ Antifade Mounting

VECTASHIELD® HardSe™ Antifade Mounting

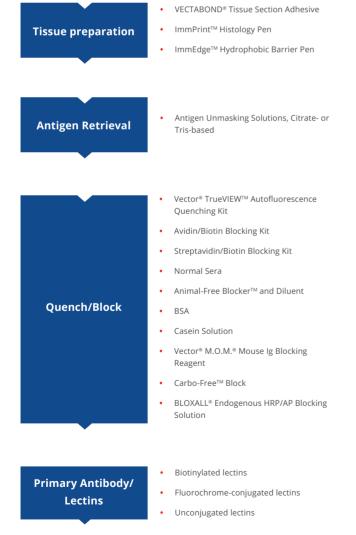
Medium with DAPI

Medium with TRITC-Phalloidin

## I Immunofluorescence

#### Making IF as easy as ABC

Vector Laboratories is your resource for premium labeling and detection products at each step of your IF workflow.



## VectaFluor™ Duet IF Double Labeling Kits Mouse on Mouse (M.O.M.®) Immunodetection Secondary Antibody Biotinylated secondary antibodies Fluorochrome-conjugated secondary antibodies Unconjugated secondary antibodies VectaFluor™ Excel DyLight® Amplified Fluorescent Staining Systems Fluorochrome-conjugated avidin or streptavidin **Tertiary Reagent** Biotinylated anti-avidin amplifying reagent Biotinylated anti-streptavidin amplifying reagent VECTASHIELD® Antifade Mounting Medium VECTASHIELD® Antifade Mounting Medium with VECTASHIELD® Antifade Mounting Medium with Propidium Iodide (PI) Counterstain/ $\bullet \quad \mathsf{VECTASHIELD}^{\circledast}\,\mathsf{HardSet}^{\mathsf{TM}}\,\mathsf{Antifade}\,\mathsf{Mounting}$ Mount

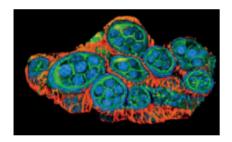
Antibodies

**Visualize** 

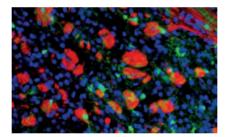
Detection system	Fluorophore	Color	Sensitivity	Concentrate	Ready to use	Biotin-free	Modular	Cost/assay
One Step								
VectaFluor™ R.T.U. Secondary Antibodies	DyLight®	Green Red	<b>/ /</b>	-	<b>√</b>	<b>✓</b>	-	<b>/ /</b>
VectaFluor™ Duet IF Double Labeling Kits	DyLight®	Green Red	<b>//</b>	-	<b>√</b>	<b>√</b>	-	<b>///</b>
Fluorophore-Conjugated Secondary Antibodies	Traditional† DyLight® Cyanine®	Blue Green Red Orange Red Orange Far Red	<b>~ ~</b>	<b>~</b>	-	<b>~</b>	-	<b>~</b>
Two Step								
VectaFluor™ Excel Amplified kits	DyLight®	Green Red	<b>////</b>	-	<b>√</b>	<b>✓</b>	-	<b>///</b>
Streptavidin / Avidin Fluorophore Conjugates*	Traditional†  DyLight®  Cyanine®	Blue Green Red Far Red	<b>/ / /</b>	<b>√</b>	-	-	<b>✓</b>	<b>√</b>
Mouse on Mouse (MOM.®) Kits								
Mouse on Mouse (MOM.®) System	Traditional†  DyLight®  Cyanine®	Blue Green Red Far Red	<b>///</b>	<b>✓</b>	-	-	<b>√</b>	<b>* * *</b>

 $<sup>\ \, {}^{\</sup>dagger}\, \text{Traditional fluorophores include: Fluorescein (FITC), Thodamine (TRITC), Texas \, Red^{\oplus}, \, AMCA, \, Phycoerythrin (PE)$ 

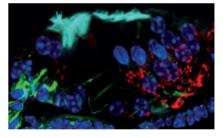
<sup>\*</sup> Sensitivity can be increased with multiple rounds of biotinylated anti-(strept)avidin and strept(avidin) fluorophore conjugates.



Fruit fly ovarian nurse cells. Cutaway threedimensional reconstruction from a confocal stack of a Drosophila melanogaster ovary. E-cadherin (GFP, green), f-actin (red) and DAPI (blue). This image is a collaborative effort by Dr. Ian Newton and Dr. Paul Appleton, School of Life Sciences, University of Dundee, Dundee, UK.



Coronal section of a Pdgfra/Rosa26 transgenic mouse brain at postnatal day (P15). The image depicts myelin basic protein (red) and oligodendrocyte precursor cells identified by the expression of GFP in the striatum. Cell nuclei are shown in blue. Image provided by Dr. Andrea Domenico Rivera, Institute of Biological and Biomedical Sciences, University of Portsmouth, Portsmouth, UK.



Adult organ of Corti labeled with anti-beta3-tubulin (green), phalloidin (cyan), anti-connexin 30 (red) and DAPI (blue). Image provided by Dr. Dan Jagger, Ear Institute, University College London, London, UK.

## Excitation and emission wavelengths and visual colors for immunofluorescence fluorophores

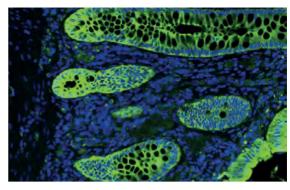
Detection system	1	Color	Ex. Max (nm)	Em. Max (nm)
AMCA		Blue	350	450
DyLight® 488		Green	493	518
Fluorescein		Green	495	515
Cy® 3		Orange	550	570
Rhodamine		Orange	550	575
DyLight® 549		Orange	562	576

Detection system	Color	Ex. Max (nm)	Em. Max (nm)
Phycoerythrin	Red-Orange	565	574
DyLight® 594	Red	593	618
Texas Red®	Red	595	615
Cy® 5	Far Red	649	670
DyLight® 649	■ Far Red	652	672

#### **VECTASHIELD®** Antifade Mounting Media

Choosing an effective mounting medium is especially important for immunofluorescence imaging. Fluorophores are susceptible to photobleaching and fading from the imaging excitation light, handling, and during storage.

Vector Laboratories is a market leader for mounting media that provide excellent signal retention for image acquisition and specimen archiving. Complete your IF workflow with VECTASHIELD, VECTASHIELD HardSet™ or VECTASHIELD Vibrance™ Antifade Mounting Media.



Human Colon Section (FFPE) stained for cytokeratin (green) using fluorescein anti-mouse IgG secondary antibody. Mounted in VECTASHIELD® Vibrance Antifade Mounting Medium with DAPI (blue)

#### **New formulation**

### VECTASHIELD® Vibrance™ Antifade Mounting Media

- Superior antifade/anti-photobleaching properties across the spectrum
- · Compatibility with commonly used fluorophores
- View sections one hour after mounting
- No tone or autofluorescent background, even after curing
- Room temperature storage of slides with extended archiving time
- Minimal bubble formation, even after several weeks storage
- Curing formulations with choice of counterstain (DAPI) or no counterstain
- 12 month product expiration date from date of shipping

Plus the same features you have come to expect of the VECTASHIELD brand:

- Exhibit ideal refractive indices
- Are ready-to-use (no warming necessary) and easy to use
- No Sealing of coverslips required (curing formulations)

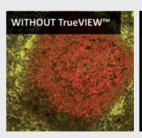


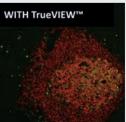
This diagram features established applications for our antifade mounting media formats. VECTASHIELD Antifade Mounting Media are widely utilized to protect the inherent fluorescent properties of traditional and contemporary fluorophores in many applications using epifluorescence and confocal microscopy. The versatility of the original VECTASHIELD format solves the demands of labs and core facilities using multiple platforms and fluorescent markers. Furthermore, VECTASHIELD reagents are also recognized as leading media in emerging techniques such as super resolution microscopy (SRM).

#### Featured product

## Vector® TrueVIEW™ Autofluorescence Quenching Kit

- Specific reduction of autofluorescence from aldehyde fixation
- Improved signal-to-noise ratio
- Effective in even the most challenging tissues
- Easy-to-use, one-step method
- Quick 5 min incubation
- Compatible with a wide selection of fluorophores
- Compatible with standard epifluorescence and confocal laser microscopes





Adjacent human spleen sections (FFPE) stained using mouse anti-CD20 (red) and rabbit anti-Ki67 (green) primary antibodies detected with VectaFluor® Duet Kit (DK-8818). Note significant reduction of autofluorescence in the treated section (right) with retention of well-defined, specific signal in both red and green channels.

## I Antibodies

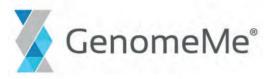


## Secondary antibodies

An extensive range of species, specificity and labels, enabling sensitive and reliable detection in ELISA, WB, immunohistochemistry, immunocytology, flow cytometry and more.



Various species	Various specificities	Various labeling	Suitable qualities
anti-human Ig	anti-lgG, lgM, lgA	fluorescent	globulins
anti-mouse and rabbit lg	anti-IgGAM	enzymatic	affinity purified antibodies
anti-goat, bovine, dog lg	anti-Fc and Fab fragments	biotin	Fab and F(ab')2 fragments



#### GeneAb™ IHC Antibodies

Gold standard research and clinical grade diagnostics

GenomeMe designs and develops monoclonal antibodies for targeted diagnostic purposes. Our pipeline of diagnostics is always growing to meet your research and clinical requirements.



#### Complete Pathology Portfolio

Internally developing a complete portfolio of 260+ monoclonal antibodies for IVD use.



#### **Gold Standard Diagnostics**

Unique monoclonal IHC diagnostics including: ROS1, IDH1-R132H and PAX8



#### Guaranteed Peace of Mind

No product discontinuation with guaranteed quality.

# Phenotype Microarrays & Mitochondrial Function Assays



## Phenotype Microarrays for Mammalian Cells

Phenotype MicroArray Mammalian assays are cell-based assays used to investigate up to 1,400 metabolic and chemical sensitivity phenotypes of mammalian cells. They use 96 well plates pre-loaded with carbon-energy and nitrogen substrates, ions, hormones/cytokines and anti-cancer agents. Plates are inoculated with the cells of interest and Biolog's proprietary redox dye. In some wells, the cells are stimulated and in other wells inhibited. The generation of energy-rich NADH by the cells reduces the redox dye and brings about a color change which is then read with Biolog's OmniLog automated incubator-reader.

Phenotype MicroArray Mammalian Assays can be used for diverse applications including:

- · Correlating genotypes with phenotypes
- Studying metabolic reprogramming in cancer and anti-cancer drug sensitivity
- Drug discovery research and toxicity screening
- · Cell line and bioprocess improvement
- · Cellular metabolism, metabolic disorders, nutrition
- · Cell energetics, growth and death
- Cell line QC and authentication

#### Kinetic data capture and analysis

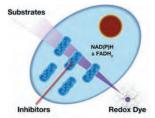
- Assembles plate or PM-M panel data files into data lists
- Displays kinetic plots of the data
- · Allows export of kinetic plots as bmp or jpeg files
- Extracts data lists from the File Management /Kinetic

## **Mitochondrial Function Assays with Mitoplates**

New Probes of Mitochondrial Function MitoPlates from Biolog provide a powerful new research tool by allowing scientists to run preconfigured sets of 96 mitochondrial function assays in one experiment. Mitochondria can be interrogated and characterized in novel ways, looking at rates of substrate metabolism, sensitivity to drugs and other chemicals, and effects of mutations in mitochondria-related genes

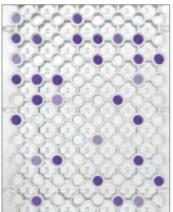
Investigate how mitochondria change with:

- Cell differentiation
- Cancer & ageing
- Neurological disorders
- Metabolic disorders
- Immune cell activation
- Bacterial/viral infection
- Inborn genetic defects





**OmniLog** 



## Hypoxic Workstations & CO<sub>2</sub> Incubators



## **Hypoxic workstations**

Our Hypoxystations create hypoxic and anoxic conditions within a controlled and sustained workstation environment. It is ideal for cell and tissue culture researchers wanting to accurately control oxygen, carbon dioxide, temperature and humidity.

Applications for these instruments include:

- cancer research
- neurology
- · cardiovascular research
- many other types of cell culture work

You can control oxygen in 0.1% increments up to 20%; carbon dioxide in 0.1% increments up to 15%; and relative humidity up to 80%. This provides a great deal of flexibility in your research and confidence in your results.



Also discover our HEPA Hypoxystation, a cell culture chamber ideal for those requiring HEPA filtration, as well as being able to accurately control parameters. Levels of atmospheric cleanliness inside the workstation exceeds the requirements of ISO 14644 Class 3. We can provide proof of atmospheric cleanliness.

An ideal solution for **Seahorse Analyzer** users is to purchase a Hypoxystation along with the new Whitley i2 Instrument Workstation. These two workstations can be connected via the Whitley Transfer Tunnel, enabling preparation of cell lines under hypoxic conditions and their transfer directly into the i2 without exposure to air.

The Whitley i2 Instrument Workstation has been developed in response to a rising number of enquiries from scientists who desire to use Seahorse Extracellular Flux (XF) Analyzers in hypoxic conditions.



## CO<sub>2</sub> incubators



## Esco CelCulture CO, incubators

 ${
m CO_2}$  Incubators are widely used in scientific research to grow and maintain cell cultures. Typical fields of application include tissue engineering, in vitro fertilization, neuroscience, cancer research, stem cell research, regenerative medicine, and other mammalian cell research.

- Sterisafe™ ulpa filtration system
- Ventiflow<sup>™</sup> forced convection
- Direct heat and air jacket
- Fast CO<sub>2</sub>, temperature and humidity recovery without overshoot
- Validated swiftcon™ overnight decontamination cycle



Need precise oxygen control?  $O_2$  Sensor - For suppressed  $O_2$  model Outstanding sensor accuracy, faster response time, long-term stability, moist heat-proof design



#### **Safegrow PRO**

- 4 solid surface stainless steel removable shelves
- State-of-the-art Direct Heating system
- IR CO2 sensor
- High Temperature decontamination cycle
- No internal fans
- Fast and accurate recovery of uniformity
- 188.6L of internal volume





## MICROBIOLOGY



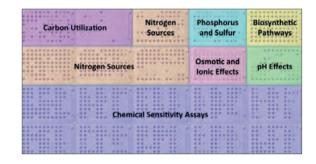
# Phenotype Microarrays, Microbial Identification, Community Analysis



Phenotype MicroArray technology enables researchers to evaluate nearly 2000 phenotypes of a microbial cell in a single experiment. Through comprehensive and precise quantitation of phenotypes, researchers are able to obtain an unbiased perspective of the effect on cells of genetic differences, environmental change, and exposure to drugs and chemicals.

Phenotype MicroArrays can be used for diverse research and applications including:

- Correlate genotypes with phenotypes
- Determine a cell's metabolic and chemical sensitivity properties
- · Discover new targets for antimicrobial compounds
- Optimize cell lines and culture conditions in bioprocess development
- · Characterize cell phenotypes for taxonomic or epidemiological studies



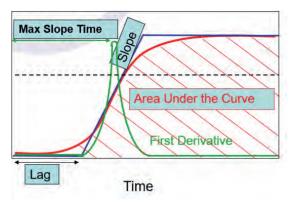
Phenotype MicroArrays are preconfigured 96 well plates containing different classes of chemical compounds designed to test for the presence or absence of specific cellular phenotypes. There are 10 panels designed to interrogate metabolic pathways along with ionic, osmotic and pH effects, and 10 panels to assess the sensitivity to various antimicrobials with different mechanisms of action.

Phenotype MicroArrays use Biolog's patented redox technology, with cell respiration (NADH production) as a universal reporter. If the phenotype is strongly "positive" in a well, the cells respire actively, reducing a tetrazolium dye and forming a strong color. If it is weakly positive or negative, respiration is slowed or stopped, and the result is less color or no color.

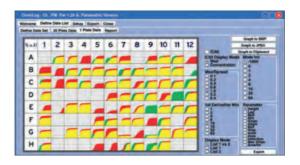
## I Kinetic data capture and analysis

OmniLog PM software contains a suite of algorithms that work in conjunction with the OmniLog PM system and Phenotype MicroArray panels to automate incubation of up to fifty microplates at a fixed user-controlled temperature with complete collection of colorimetric assay data over time. These programs allow for display of kinetic data from PM panels recorded by the OmniLog PM system, manage and analyze the data, export it in a variety of raw and processed forms, and generate reports.

To compare the phenotypes of two cell lines, one is recorded as a red tracing and one as a green tracing. These graphs can then be overlaid by the bioinformatic software to detect differences. Areas of overlap are colored yellow, whereas differences are highlighted as patches of red or green.







Phenotype MicroArray Single Panel Comparison Display showing Cellular Responses for 96 Kinetic Assays

## Featured product

## Microbial Community Analysis with EcoPlates

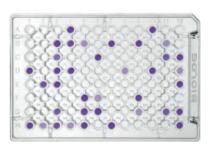
Microbial communities provide useful information about environmental change. Microorganisms are present in virtually all environments and are typically the first organisms to react to chemical and physical changes in the environment. Changes in microbial communities are often a precursor to changes in the health and viability of the environment as a whole.

- Created in accord with recommendations of microbial ecologists specifically for community analysis and microbial ecological studies. Biolog EcoPlates have been found to provide a sensitive and reliable index of environmental change.
- Measure the metabolism of 31 carbon sources per assay
- Each assay panel tests in triplicate
- Simple colorimetric readout
- Readable with any microplate reader

This approach, called community-level physiological profiling, has been demonstrated to be effective at distinguished spatial and temporal changes in microbial communities. In applied ecological research, the MicroPlates are used as both an assay of the stability of a normal population and to detect and assess changes following the onset of an environmental variable.

Researchers have used EcoPlates for years in numerous applications including:

- Analyzing population changes in soil
- · Water and wastewater testing
- Activated sludge, compost, and industrial waste testing
- Bioremediation and effects of toxic chemicals



# **Anaerobic & Microaerobic Workstations**



# I Anaerobic and Microaerobic Workstations



#### Instant Access Ports

The patented Whitley Instant Access Porthole System provides instant access to your samples. This sleeveless system uses eight times less gas when entering the workstation compared with a conventional porthole system.

#### • Anaerobic Conditions Monitor

An animated green icon confirms that suitable anaerobic conditions exist in the workstation. Yellow and red icons provide an early indication if conditions begin to vary.

#### Colour Touchscreen

Operating requirements are configured and maintained by an intelligent, programmable logic controller in conjunction with an intuitive touchscreen interface.





#### • Catalyst Monitoring System

Automatically testing your catalyst/atmosphere on a daily basis reduces the need for control plates.

#### Three Gas Operation

Unique to DWS, some of our anaerobic workstations can operate on separate cylinders of  $N_2$ ,  $H_2$  and  $CO_2$  to provide the most cost-effective anaerobic conditions (around 30% cheaper than a dual gas version).

#### • Data Download/Traceability

Allows the recording of workstation temperature, humidity, chamber pressure and other parameters for traceability or reference.

#### • Internal HEPA Filtration System

All the atmosphere in the chamber passes through the filter hund reds of times an hour. Exceeds the requirements stipulated by ISO 14644 Class 3.

#### Remote Access

Ethernet-enabled for remote access to the touchscreen panel.





# I Jar Gassing System

For those laboratories still using jars, the Whitley Jar Gassing System reduces the cost of creating microaerobic conditions by 98% and anaerobic conditions by 89% compared to using gas packs. With the Whitley Jar Gassing System you can create perfect conditions for growing anaerobes in jars in just 2 minutes and for microaerophiles in 15 seconds.

- A full color touch screen control panel allows you to monitor, in real time, that the criteria necessary for the creation of either anaerobic or microaerobic conditions has been met.
- If you already have anaerobic jars that you wish to use you can order the adaptor kit, which will enable you to connect most types of jar.



# Lab automation





### Lab blender

#### **Extreme Compactness**

The most compact blender on the market (30dm³)

Space optimization of your bench

Easily transportable



Stainless steel chamber (AISI 30 4)













**PATENTED** pendular blending

Delivers up to 70kg pressure/paddle. Optimum homogenization!

#### Vibration free

Extreme stability while blending

#### **Comfort of deanability**

Quick removal of the door

Removable paddles

Waste tank integrated into the door

**Expert crush** 

28 to 70kg pressure per paddle



Silent

<48 db



Light

lightest of the market! 14kg







#### Fast & accurate

225ml dispensed in 12 seconds (9 in turbo) with >99% accuracy!



performance	
Fast & accurate dispensing	12 sec. for 225ml / (9 sec in turbo mode)
Dilution accuracy	> 99 %
urbo mode	YES
ubble level integrated	YES
otorized dispensing nozzle	YES
itable programs	20
eighing range	1 g to 4000 g
ilution factor	1.00 to 1/100.00



# **EDIAWEL®**

# Media preparator

Safety lid (locked above 80°C)

#### Multicolour visual alarms



Uphill & downhill -Filtration - Contamination prevention

Double pressure monitoring

7" touch screen LCD intuitive display





Large stirrer

(wide viscosity range)



Wifi live communication

**Trapdoor** (easy cleaning of the bowl)



**Medical wheels** 









2.5 to 30 liters



30 - 125°C +/- 0.5°C



60 - 90 mins





dehydrated media water



**MEDIAWEL** 







prepared solid / liquid media

#### **Quality media**

- Controlled temperature = perfect sterility & perfect fertility (T° precision: +/- 0,5°C)
- Continuous homogenization
- Large smooth stirrer (1807 cm²) for higher homogeneity. Slow stirring (9 ajustable speeds 20-110 rpm) to avoid bubbling
- Less handling = less contamination

#### **Traceability**

• Temperature monitoring up to 3 points

















# DISTRIWEL 440®

### Media pourer stacker



Ensure a flat poured media (bubble level integrated)



#### Walkaway device

Up to 440 dishes filled in 30 mins



#### **Traceability**

Print up to 25 characters (2 lines) on the Petri dish (optional laser printer)



The Built-in Peltier cooling effect reduces condensation and solidification time

#### **Aerobiocontamination prevention**

Contamination prevention (UV lamp) while pouring + Plexiglas protection

In-line blood addition option

Multicolour visual alarms

7" touch screen intuitive display







Your culture media is accurately poured by a Masterflex<sup>tm</sup> peristaltic pump

#### Pack your ready to use dishes with the Minima





# JSYWEL



Up to 20 programs editable

- Volume (1 to 9999 ml)
- Number of doses (1 to 999)
- Time for interval (0,1 to 60,0 seconds)
- Pump speed (1 to 130% = 10 to 550 rpm)
- Diluent (batch, name, volume)
- Calibration mode (calibration starting the program, reminder each x sample)

Compact & light: 3,8 kg

# interscience

# Dilu*Flow*®

#### **Gravimetric dilutors**







	Diluflow	Diluflow Pro	Diluflow Elite
Ultra low profile	✓	✓	✓
DripTray	✓	✓	✓
Robotic arm	-	✓	✓
Jumbo kit option	-	✓	✓
Programmable	-	-	✓
Full traceability	-	-	✓
Up to 6 pumps	-	-	✓
Multi-Dispensing	-	-	✓

# BagMixer®

### Lab blenders



MiniMix® 100

5-80 mL – Sample up to 10 g



BagMixer® 400

50-400 mL - Sample up to 40 g



JumboMix® 3500

400-3500 mL – Sample up to 400 g

BagMixer® are highly efficient lab blenders for solid sample preparation. With a blender bag, they guarantee optimal microbiological extraction in less than 60 seconds and eliminate all risks of cross contamination.

More than 15.000 BagMixer® used daily!

- World best selling lab blender
- 11 models for most applications (from 5 mL to 3500 mL)
- 35 years experience
- Life-time service and spare parts
- 3 Year Guarantee



# Flexi*Pump*®

### Peristaltic pump

#### **Designed for microbiologists**

- Select from 3 dispensing modes:
  - Continuous
  - Dose (predetermined volume)
  - Multi-dose (predetermined volume, with an adjustable pause between each dose)
- 32 editable programs
- Rotating button for easy navigation



### Now dispensing is easy

Easy dispensing

Improved dispensing control with the handy gun and the adjustable arm

#### Culture media

E.g.: 9 mL in test tube



E.g.: 18 mL in Petri dish



#### Any liquid diluent

E.g.: 90 mL or 225 mL in bottle or blender bag



#### **Precise flow control**

- Up to 1% precision
- Dispenses liquid from 50 μL to 99 L
- Contamination free: entire dispensing assembly is autoclavable together with bottle
- FlexiPump typical precision with 3.2 mm inner diameter tube:
  - 9 mL: 1.8%
  - 18 mL: 1%
  - 225 mL: 0.5%
- In compliance with ISO 6887-1 and ISO 7218 standards

#### Maintenance free

- Heavy duty polycarbonate top shell and durable stainless steel
- High quality Watson MarlowTM pump heads

#### **User-friendly**

- Compact: only 16 cm wide
- Improved dispensing control with the handy gun\* and electronic start button
- Smart magnetic handy gun\* holder for easy storage

#### **Easy calibration**

Step-by-step instructions on screen

# easy**Spiral** Dilute®

# **Spiral plating**

#### A revolution in serial dilutions!

- 40 cm wide, can be used inside and outside a laminar flow
- · Stainless steel housing

Compact

#### **High speed automation**

- Fast rotating arm
- 1 disinfection, 5 dilutions and 1 plating in 134 sec.

#### PATENTED

#### **High precision**

- Glass syringe typical accuracy of 0.5 %
- No more pipet calibration

#### **Cleaning autonomy**

2 fully autoclavable bottles (diluent & disinfectant) and connectors

#### Easy serial dilution

- Choose your dilutions factor
- Do 10<sup>-5</sup> dilution or more automatically
- No more 9 mL tube preparation

#### **PATENTED**

#### **Automatic disinfection**

interscience

easy**Spiral** 

Dilute

- Overflow technology cleaning system
- No cross contamination

#### PATENTED

#### **One-touch plating**

- Choose from 4 plating modes
- Plate on 55, 90 and 150 mm Petri dishes

# I Colony counting

# Scan® 100

### Comfort and technology

Scan® 100 is a high-tech colony counter remarkable for its user-friendly functions and great ergonomics, which allow accurate colony counting on all media used in microbiology (Petri dishes, Petrifilm™, filtration membrane). A LED lighting system gives a contrasting and clear view of the colonies. The integrated USB port allows easy export of the results to the software of your choice (PC and Mac) to guarantee traceability of the results.



#### Adjustable white LED lighting

- Easy adjustment of the lighting with the "Lighting" button
- The operator has a clear vision with the indirect lighting
- LEDs: long-life, no heat production, no wearing parts

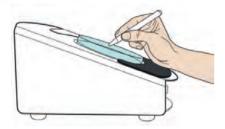


#### Adjustable touch surface

- Intuitive counting with the tactile pressure + beeping sound
- Adjustable sensitivity with the "Sensitivity" button



- Easy storage of the counting grids below device
- Data export via USB, LIMS, Excel<sup>™</sup>: time-saving, error-free results



#### **Ergonomics**

- Count with pen of your choice
- Ergonomic counting area
- Foam hand-rest







#### Colony counting on all media

- Petri dishes from 55 mm to 150 mm
- Petrifilm™
- Filtration membranes

# **Scan®**



Scan® 300

#### **Essential**

6 combinations of lighting and backgrounds

Motorized background color

Brightness, contrast and sensitivity are automatically optimized by the software

Long lasting LED lighting

CMOS color camera, zoom x28, M12 lens

Minimum size of detected colony: 0.1 mm



Surface / pour plating



Spiral plating



Scan® 500

#### **Efficient**

6 combinations of lighting and backgrounds

Motorized background color

Brightness, contrast and sensitivity are automatically optimized by the software

Long lasting LED lighting

CMOS color camera, zoom x28, M12 lens

Detects and counts up to 7 colors on the same dish

Minimum size of detected colony: 0.1 mm

Inhibition zone reading with EUCAST, CA-SFM, CLSI and editable database



Surface / pour plating



Spiral plating



Chromogenic Petri dishes



Antibiogram



Scan® 1200

#### **High-Resolution**

6 combinations of lighting and backgrounds

Motorized background color

Brightness, contrast and sensitivity are automatically optimized by the software

Long lasting LED lighting

HD color CCD camera, zoom x28, HD japanese lens

Detects and counts up to 7 colors on the same dish

Inhibition zone reading with EUCAST, CA-SFM, CLSI and editable database

Minimum size of detected colony: 0.05 mm

Petrifilm™, Compact Dry™, NeoFilm™/ Sanita-kun™ and filtration membrane reading



Surface / pour plating



Spiral plating



Chromogenic Petri dishes



Antibiogram



Petrifilm™



Compact Dry™



NeoFilm™/ Sanita-kun™



Filtration membrane

# I Spiral plating



### WHITLEY WASP TOUCH

#### Eliminate serial dilutions

The newest spiral plater, designed for the needs of modern microbiology laboratories. A fundamentally different plater, extremely simple to use and provides real cost savings and process improvements. Now it really is time to eliminate serial dilutions!









- Full Colour Touchscreen
- Automated Intelligent Monitoring Software (AIMS) automatically logs date, time, deposition, user name, number of plates produced
- Eliminate time, efforts and cost of serial dilutions
- One Touch Operation
- Flowsense detects the movement of liquid through the WASP Touch
- Sanitizing System maintains sanitizing fluid and water levels automatically to ensure effective sanitizing
- · Flexible Sample Collection Sample can be drawn from a disposable beaker and from a wide range of tubes and bottles.
- Fully integrated vacuum waste system

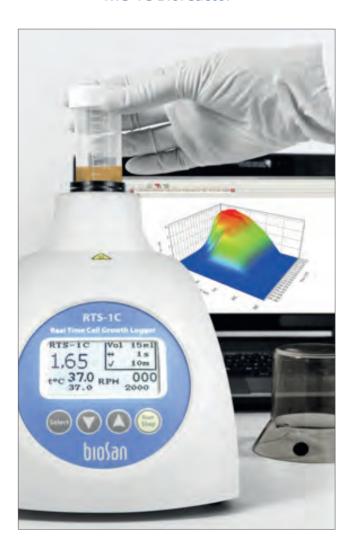
#### **Featured product**



### RTS-1C & RTS-8 bioreactor

RTS is a personal bioreactor which utilize patented Reverse-Spin® technology that applies non-invasive, mechanically driven, low energy consumption, innovative type of agitation where cell suspension is mixed by the single-use falcon bioreactor tube rotation around its axis with a change of direction of rotation motion resulting in highly efficient mixing and oxygenation for aerobic cultivation. Combined with a near-infrared optical system it is possible to register cell growth kinetics non-invasively in real time.

**RTS-1C Bioreactor** 



**RTS-8 Multi-channel Bioreactor** 



MICROBIOLOGY Culture Media

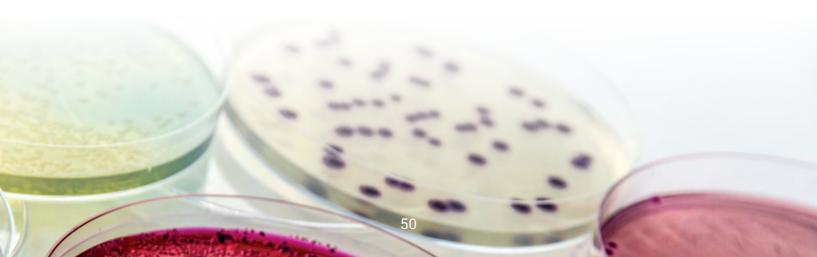
# **Culture Media**



Founded in 1960, Condalab is Spain's first dehydrated culture media for microbiology and molecular biology manufacturer, as well as one of the world's leading ones. Condalab is also recognized for offering key ingredients such as agars, peptones and agaroses, among other products.

R&D	CLINICAL MICROBIOLOGY	MICROBIOLOGICAL QC IN THE INDUSTRY	MICROBIOLOGICAL INDUSTRIAL PRODUCTION	MOLECULAR BIOLOGY
<ul> <li>Peptones</li> <li>Extracts</li> <li>Agar</li> <li>Agarose</li> <li>DCM &amp; RTU Culture Media</li> <li>Tailored Culture Media</li> </ul>	<ul> <li>Antibiotic discs &amp; MIC</li> <li>Culture media for antimicrobial resistance diagnosis</li> <li>DCM &amp; RTU</li> <li>Dyes for mycobacterial disease diagnosis</li> <li>Transport culture media</li> </ul>	<ul> <li>Enrichment culture media</li> <li>Selective enrichment media</li> <li>Culture media for selective isolation</li> <li>Validated culture media</li> <li>DCM &amp; RTU</li> <li>Confirmation &amp; bacterial identification reagents</li> </ul>	<ul><li>Peptones</li><li>Extracts</li><li>Infusions</li><li>Carbohydrates</li><li>General culture media</li></ul>	<ul> <li>Broths and LB agars</li> <li>Culture media for protein expression</li> <li>Extracts and peptones</li> <li>Agarose</li> <li>Agarose staining</li> <li>Antibiotic selection</li> </ul>
<ul><li>BSE/TSE Free</li><li>EDQM Suitability</li><li>GMO</li><li>Animal free</li></ul>	<ul><li>CE Marking</li><li>IVD Devices</li><li>ISO 13485</li></ul>	<ul><li>ISO</li><li>AOAC</li><li>BAM</li><li>USP</li><li>Eur. Pharma</li></ul>	<ul><li>BSE/TSE Free</li><li>Certificates of origin</li><li>GMO</li><li>Animal Free</li><li>Allergens</li></ul>	GQT Certified

Our ability to listen and commitment to find optimal solutions allow us to be close to the clients. Our custom product department has the capacity to adapt more than 60 year of manufacturing culture media knowledge to offer customized solutions for each area.



# GENERAL LAB INSTRUMENTATION



# **Laminar Flow Cabinets**



#### Airstream®

Laminar Flow Clean Benches, Horizontal and Vertical

- World's Leading Low Noise Laminar Flow Cabinet
- Energy-efficient DC ECM Motor with power consumption of only 155 watts
- · With Standby Mode for more energy saving
- · Stable and Self-compensating Flow
- With ISOCIDETM Antibacterial powder coating
- ULPA filter (up to ISO Class 3)
- With Real-time Airflow Monitoring
- · With Fixed Sash and Sliding Sash option





#### **AURA HZ**

Horizontal laminar flow cabinet

- High efficiency washable polyurethane prefilters
- H14 class HEPA filter
- Electronic control air speed
- Working surface in stainless-steel (AISI304)
- Side panels in tempered glass
- Micromesh membrane on HEPA filter downstream surface for perfect airspeed distribution
- Up to four plugs installable near the light on the ceiling of the cabinet to leave working surface free
- Sizes: 1.2, 1.8



# **Biosafety Cabinets**









#### Selection of a Biological Safety Cabinet

A BSC should be selected primarily in accordance with the type of protection needed: product protection; personnel protection against Risk Group  $1 \sim 4$  microorganisms; personnel protection against exposure to radionuclides and volatile toxic chemicals; or a combination of these. The table below shows which BSCs are recommended for each type of protection.

Type of Protection	BSC Selection
Personnel Protection, microorganisms in Risk Group 1-3	Class I, Class II, Class III
Personnel Protection, microorganisms in Risk Group 4, glove box laboratory	Class III
Personnel Protection, microorganisms in Risk Group 4, suit laboratory	Class I, Class II
Product Protection	Class II, Class III
Volatile radionuclide/ chemical protection, re-circulated back to work zone	Class II Type B1, Class II Type A2 vented to outside
Volatile radionuclide/ chemical protection, no re-circulated back to work zone	Class I, Class II Type B2, Class III vented to outside

#### Is your Biological Safety Cabinet truly safe?

Many cabinets meet the minimum safety requirements of international standards like NSF/ANSI 49 and EN 12469, but does your biosafety cabinet have these extended safety features to further protect you from the cabinet's wear and tear and unexpected situations? Think safety. Choose a biosafety cabinet with enhanced safety features beyond international standard requirements.

LABCONSULT offers a complete range of Biological Safety Cabinets meeting EN12469 European Standard. We help you to select the right cabinet for the right purpose based on your specific quality and budget requirements.

# Fume hoods, safety cabinets and storage



Norms & Regulations to follow:

- EN 14470-1 and EN 14470-2 on our safety cabinets for flammables,
- FM & OSHA for the cabinets for industries.
- NF X 15-211 may 2009 for our ductless fume hoods,
- EN 15154-1 & EN 15154-2 for our safety showers and eye-washers.

# NF X 15-211 Ductless fume hoods - Filtering safety cabinets - Ventilation

When you manipulate chemicals, your health is endangered, due to the emanation of toxic vapors/powders. As to protect you and your environment, you have to manipulate your chemicals into a ductless fume hood equipped either with a molecular filter (activated coal filter), or with a particular filter (HEPA filter), or both.



### EN 14470-1 - EN 14470-2 safety cabinets

The flammable and/or explosive products have to be stored in safety cabinets. The cabinets EN 14470-1 have a fire resistance allowing protecting the products from a potential fire. We offer 30, 60 or 90 minutes fire resistance; the 30 and 90 minute ones being also available in multirisks cabinets for the storage of several types of chemicals. On the other hand, the safety cabinets EN 14470-2 have a 30 minute fire resistance and allow protecting gas cylinders in case of a potential fire.



# Safety showers, eye-washers and first-aid equipments

The first-aid equipments as showers and eye-washers have to be installed near the zones of danger. Their access must be easy and indicated clearly by normalized pictograms (supplied with our equipments).



# Laboratory autoclaves



#### HG Series - Vertical autoclaves premium

Fulfilling highest demands regarding performance and comfort



- Certified according to the Pressure Equipment Directive 2014/68/EU
- Available in 4 sizes with 50, 80, 113, 133 liters of effective usable volume
- Innovative locking system with motorized lid including pressure and temperature monitoring
- Steam generation in the chamber
- · High energy efficiency and long service life
- Rapid cooling for short cooling times
- Electrical, mechanical and constructional factors guarantee the highest level of quality and user protection

#### HV Series – Vertical autoclaves classic

Tireless, durable and ingeniously simple



- Certified according to the Pressure Equipment Directive 2014/68/EU
- Available in 4 sizes with 25, 50, 85 and 110 liters of effective usable volume
- Simple, reliable and with a long service life, your perfect choice for standard tasks
- Optionally available with **flexible temperature sensor** for the sterilization of liquids
- Electrical, mechanical and constructional factors guarantee **the highest level of quality** and user protection

Table-top autoclaves
Space saving and convenient



The sterilizers are divided into 3 groups, the series "N", "S" and "B". Which autoclave is suitable for your application should be determined during an individual consultation. Our product specialists are happy to assist you.

# Incubators, Ovens, Refrigerators, Freezers





#### **Quality-Reliability-Precision**

Memmert is an innovation leader in the development of **heating and drying ovens, incubators, cooled incubators, CO2-incubators, climate chambers and water- and oilbaths** for a wide range of applications in biological, pharmaceutical and food research as well as industrial quality testing. All parameters are controlled with the utmost precision to ensure a perfect atmosphere in our temperature control appliances.

#### Certified cleanroom-compliant equipment

The suitability of the universal oven UF1060 as well as the climate chamber HPP1060 for use in the cleanroom has been confirmed by the independent Fraunhofer IPA (Institute for Manufacturing Engineering and Automation). These instruments are therefore entitled to bear the certificate Fraunhofer TESTED DEVICE®.





#### Medical Devices - Temperature control for the medical industry

It is the hard-lined commitment to quality that has made Memmert a reliable partner in the medical sector and medical research industry. They are DIN EN ISO 13 485 certified since many years. Memmert offers ovens, sterilizers, incubators, CO2-incubators and blanket warmers classified as medical device according to the medical device directive (93/42/EEC).



Biostorage you can depend on

# Biostorage on your terms : the Gram BioLine Range

- 125L to 1.400L cabinets
- -86°C to +20°C
- High performance and reliability
- Easy customization



















#### Arctiko biomedical freezers and refrigerators

- Wide temperature and volume range
- 7L to 1.400L cabinets
- -150°C to +10°C
- Advanced and customized solutions





**Labconsult** offers a very complete range of temperature control solutions from different manufacturers to offer the optimal solution for you. Based on your specific quality and budget requirements, we assist you in the selection of the right instrument for your needs.

# Water purification systems



Our **arium® laboratory-grade water purification systems** feature an inspiring, application-oriented design. They enable you to perform your workflows faster and more reliably, simplifying your daily lab work while ensuring cost-efficient operation over the long term.



#### Ultrapure Water Systems Type 1

arium® mini and arium® pro series offer a wide selection of modular-designed systems for producing Type 1 ultrapure water for mission-critical applications.



#### Pure Water Systems Type 2

The arium® advance EDI provides Type 2 water in consistently high quality for supplying lab instruments with feed water and for preparing buffers and media to be used in non-critical applications.



#### Pure Water Systems Type 3

The arium® advance RO delivers consistently high-quality Type 3 pure water for standard laboratory applications, such as feed water for lab instruments or water for preparation of non-critical buffers and solutions

#### Combined Systems – Type 1 Combined with Type 2 or Type 3

#### All in one: space-saving, innovative technology!

The arium® mini plus and the arium® comfort systems are the highlights of the Sartorius lab water family. These systems provide you with both pure and ultrapure water directly from the tap. Intermediately stored in the unique, disposable arium® Bag in its bagtank system, pure water is safely stored for immediate use or for further purification as Type 1 water.



#### bagtank Technology – a Revolution in Lab Water Purification

#### Innovative pure water storage

The innovative bagtank reliably stores Type 2 or Type 3 water produced by arium® comfort, in 20-, 50- or 100-liter disposable arium® Bags that are easy to exchange.

# Laboratory washers



# Many cleaning solutions for each type of dirt

The laboratory environment is different and complex, for this reason Smeg developed a wide range of glassware washers and accessories that meet all requirements.



#### AUSILAB™ - for laboratory glassware washers

- AUSILAB™ 210 Alkaline powder detergent
- AUSILAB™ 250 Neutralizing liquid acid
- AUSILAB™ 280 Alkaline liquid detergent
- AUSILAB™ 290 Alkaline liquid detergent ccording to the ECOCERT standard.
- AUSILAB™ 260 Regenerating salt > 98% NaCl.







# Benchtop lab instruments

A complete range of general benchtop lab instruments is offered. This chapter gives you a global overview of available product groups, a list of most suppliers we represent and the most popular products highlighted.

Our website www.labconsult.be shows our complete product portfolio of lab instruments, detailed product information, pricing and much more.

### I Rockers - Shakers - Rotators - Rollers - Stirrers





# Waterbaths – thermoregulators



# Spectrophotometers



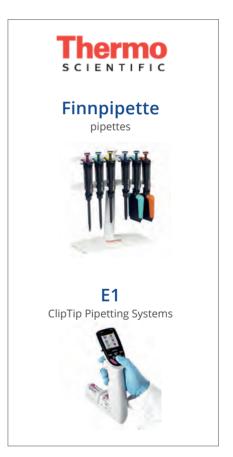
Jenway offers five ranges of visible and UV/visible spectrophotometers which have been designed to suit a wide range of budgets, industries and applications. The range include single beam entry level spectrophotometers, split-beam spectrophotometers with a spectral bandwidth of 1.5nm; and advanced variable double beam spectrophotometers with a spectral bandwidth down to 0.5nm.



# I Liquid handling







#### Vortexes



# I Balances and scales





# I Block heaters - heating mantles - hotplates





# I Homogenizing equipment



# **I** Centrifuges





# I pH & Conductivity meters



LABCONSULT offers a complete range of Lab Instruments providing an optimal solution for all your needs. We help you to select the right product for the right purpose based on your specific quality and budget requirements.

# SAMPLE STORAGE, LIQUID HANDLING AND FILTRATION





# Sample storage



# I 2D Long-term Sample Storage

#### for Biobanking, Compound Management and more

SAFE® 2D tubes can be used everywhere, where the focus is on storing, transporting and reliably tracking samples safely in the long or short term and in a space-saving manner.

SAFE® offers a large range of 2D coded tubes preferably arrayed in spacesaving and automated SBS racks that are suitable for storage down to -196°C (LN2). Our product range also includes the required technical infrastructure such as scanners and cappers/decappers.

SAFE® 96 XT	2D tubes with external threads in the 96 SBS format
SAFE® 96 IT	2D tubes with internal threads in the 96 SBS format
SAFE® 48 XT	2D tubes with external threads in 48 SBS format
SAFE® 24 XT	2D tubes with external thread in 24 SBS format
SAFE® CRYO	2D sample archiving in the classic, square cryo format



- Samples integrate the Samplosopher Barcode Scanner
- Samples can be organised, categorised and archived individually as racks and tubes
- Fields and field categories can be freely defined (e.g. text, number, volume, date, multiple choice, file)
- All information entered into samples can be searched using the samples search panel.
- Sample information can be imported or exported and shared with colleagues

XT and IT Screw Caps are delivered in three different forms: pre-screwed, in a cap rack (SBS 96/48) or loose¬ly in a bag. By default, LVL offers more than 12 different capcolours, which can also be mixed column by column for larger quantities.



We also offer individualised software solutions, incl. database connections, upon request. Please feel free to contact us

#### SAFE® READ - 2D / 1D Code Readers



SAFE® READ Single Express



SAFE® READ Single Express Integration



SAFE® READ Multi Standard



SAFE® READ Single Tube



SAFE® READ Single Tube Mobile



SAFE® READ Single Tube

#### SAFE® CAP - Manual, Semi-automatic and Fully-automatic Cappers / Decappers



SAFE® CAP 1 CHANNEL

Manual 1-Channel Capper/Decapper/

Picker



SAFE® CAP 8 CHANNEL HH
Semi-Automated 8-Channel Capper/
Decapper



SAFE® CAP 8 CHANNEL DD Automated 8-Channel Capper/ Decapper



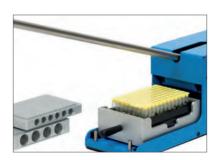
SAFE® CAP MULTI CAP DD Automated Single Column/Row Capper/Decapper for SBS 96/48/24



SAFE® CAP 96 CHANNEL DD Automated 96-Channel Capper/ Decapper



SAFE® CAP SEAL AUTOMATIC Semi-automated Push Cap Sealer



SAFE® CAP SEAL MANUAL Manual Push Cap Sealer



SAFE® CAP DESEAL MANUAL Manual Push Cap Desealer



SAFE® CAP FOIL SEAL Automated Heat Sealer with integrated Laser Cutting 96/48/24

#### SAFE® ACCESS - Simple Accessories that Make Life Easie



SAFE® ACCESS DEFROST ROLLER SBS Manual Defrost Roller



SAFE® ACCESS TUBE PRESENTER Manual Tube Presenter



SAFE® ACCESS TUBE REFORMAT 96 Automated Tube Carrier



SAFE® ACCESS TUBE PICKER Semi-automated Tube Picker



SAFE® ACCESS

METAL FRAMES

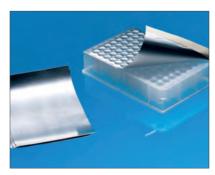
Metal Frames for SBS and CRYO Racks

#### **Covering films**

Perfect Sealing - Easy Peeling! LVL offers a wide range of different adhesive films for sealing deep well plates, tube racks and for PP and PS plates. All our films are supplied by us in the form of rolls.



Plastic self-adhesive



Aluminium self-adhesive



Fabric self-adhesive

# **Robotic Liquid Handling**



# I Robotic Tips BlackKnights







With blackKnights - the conductive robotic tips from Ritter Medical - even small volumes can be dosed with high precision and without contamination. The conductivity enables the system to recognize the filling height and will guarantee a minimal immersion of the tip into the liquid, in order to assure a save pipetting and dispensing.



#### **Type Hamilton**

robotic Tips for Hamilton Microlab Star, Nimbus® and Vantage



#### Type Tecan

robotic Tips for Tecan and other OEM-Workstations



#### Type Qiagen

robotic Tips for Qiagen and other OEM-Workstations



#### **Type Olympus**

Diagnostic without compromises

# I Robotic tips ClearKnights



#### **Type Tecan**

Robotic tips for Tecan and other OEM workstations



#### Type Dynex

Robotic tips for Dynex instruments



# **Filtration**



# I ReliaPrep™ Syringe Filters

Ahlstrom-Munksjö offers a wide variety of syringe filters for convenient sample preparation and fluid sterilization.

#### Applications:

- Sample clarification/particulate removal
- Filtration of solvents used for chromatography applications
- Filtration of biological samples, tissue cultures, proteins and nucleic acids
- Sterile filtration and venting



Membrane	Diameter (mm)	Pore size (µm)	Held-up volume (µl)	Housing	Outlet
	28	0.2	100	MBS	Male Luer Lock
	28	0.2	100	MBS	Male Luer Slip
	28	0.45	100	MBS	Male Luer Lock
Cellulose Acetate	28	0.45	100	MBS	Male Luer Slip
	28	0.8	100	MBS	Male Luer Lock
	28	1.2	100	MBS	Male Luer Lock
	28	5	100	MBS	Male Luer Lock
Regenerated Cellulose	4	0.45	5	PP	Male Luer Slip
	15	0.2 / 0.45	10	PP	Male Luer Slip
	25	0.2 / 0.45	100	PP	Male Luer Slip
Aludon (Dolumnido)	15	0.2 / 0.45	10	PP	Male Luer Slip
Nylon (Polyamide)	25	0.2 / 0.45	150	PP	Male Luer Lock
PES	28	02 / 0.45	100	MBS	Male Luer Lock
PES	28	0.2	150	MBS	Male Luer Slip
	15	02 / 0.45	10	PP	Male Luer Slip
PTFE	15	0.45	10	PP	Make Spike
	25	02 / 0.45	100	PP	Male Luer Slip
Cellulose Acetate with GF	28	02 / 0.45	230	MBS	Male Luer Lock
Prefilter	28	0.7	230	MBS	Male Luer Lock

# I ReliaMAX™ High Capacity Syringe Filters

Ahlstrom-Munksjö offers a range of advanced syringe filters for difficult sample preparation that include multiple layers of custom prefilters

Applications:
---------------

- Clarification of solutions
- Removal of particles
- Sample preparation

Membrane	Diameter	Pore size	Hold-up volume	Housing	Outlet
Nylon	25 mm	0.2 µm	<400 µl	PP	Female Luer Lock / Male Luer Slip
NyIOII	25 mm	0.45 µm	<400 µl	PP	Female Luer Lock / Male Luer Slip
PTFE	25 mm	0.2 µm	<400 µl	PP	Female Luer Lock / Male Luer Slip
PIFE	25 mm	0.45 µm	<400 µl	PP	Female Luer Lock / Male Luer Slip

# I ReliaDisc™ Membrane Filters

Ahlstrom-Munksjö offers gridded sterile membranes packed individually specifically designed to save time when performing colony counting and microbiological quality control.

Membrane

#### Applications:

- Particle retention and collection
- Sterile filtration of solutions
- Microbiological applications for cell growth and colony counting
- Particulate analysis
- Air monitoring applications
- Microbiological analysis of potable and waste waters

Diameter Pore size Flow rate water

Membrane	Diameter	Pore size	Grid	
	47 mm	0.45 μm	White / Black	
	50 mm	0.45 μm	White / Black	
	47 mm	0.45 µm	White / Black	High Flow
	50 mm	0.45 µm	White / Black	High Flow
	47 mm	0.2 µm	White / Black	
Celluluse	47 mm	0.45 μm	Grey / White	
Nitrate	50 mm	0.45 µm	Grey / White	
	47 mm	0.45 µm	Green / Dark Green	
	50 mm	0.45 µm	Green / Dark Green	
	47 mm	0.45 µm	White / Green	
	50 mm	0.45 µm	White / Green	
	50 mm	0.45 µm	Green / Dark Green	Non Sterile

	25 mm	0.45 µm	65 mL / min	Non Sterile
Celluluse Acetate	47 mm	0.2 / 0.45 μm	24 / 65 mL / min	Non Sterile
	50 mm	0.45 µm	65 mL / min	Non Sterile
-	90 mm	0.45 µm	69 mL / min	Non Sterile
	25 mm	0.45 μm	70 mL / min	Non Sterile
-	47 mm	0.45 / 0.65 / 0.8 µm	70 / 130 / 200 mL / min	Non Sterile
Celluluse Nitrate	47 mm	1.2 / 5 / 8 µm	320 / 570 / 750 mL / min	Non Sterile
	50 mm	0.45 µm	70 mL / min	Non Sterile
-	50 mm	0.8 µm	200 mL / min	Non Sterile
-	90 mm	3 µm	430 mL / min	Non Sterile
0.755	25 mm	0.45 µm	20 mL / min	Non Sterile
PTFE	47 mm	0.2 / 0.45 / 1.2 µm	0.1 / 0.2 / 1,6 mL / min	Non Sterile
Regenerated Cellulose	47 mm	0.45 µm	30 mL / min	Non Sterile
Nylon	47 mm	0.45 µm	> 35 mL / min	Non Sterile





# A DEDICATED TEAM OF PROFESSIONALS IS AT YOUR SERVICE TO HELP YOU FIND THE RIGHT PRODUCT

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