

# Update

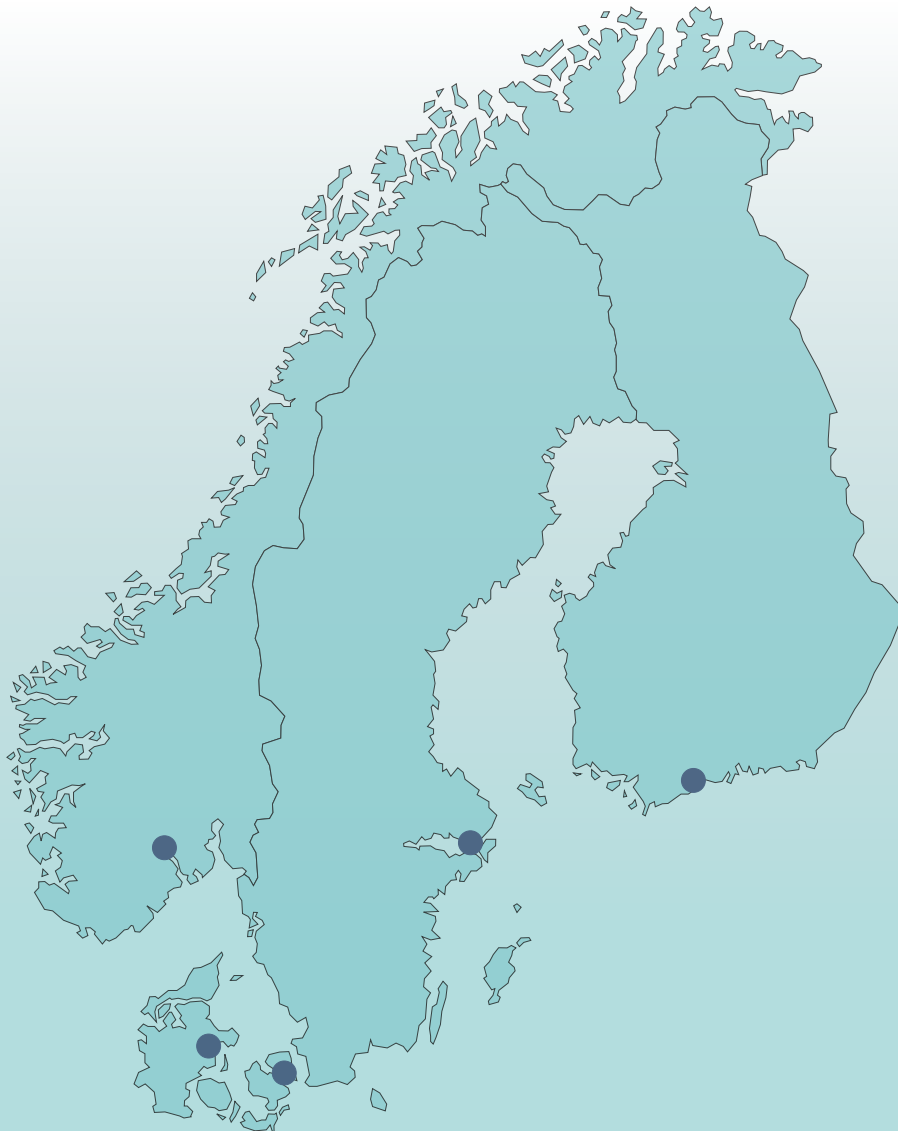
SPRING 2024

Discover new technologies and how you can accelerate your research...

...and get insights to how your colleagues take advantage of innovative products in their labs

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# Embracing the future of science with bio-based lab consumables

**In the quest for scientific breakthroughs, laboratories wield significant influence in shaping a sustainable future. Embracing bio-based lab consumables is not merely an innovation; it is a conscious choice towards environmental stewardship and responsible scientific conduct.**

## What are bio-based lab consumables?

Bio-based lab consumables are a groundbreaking innovation, crafted from renewable biological resources rather than traditional petroleum-derived materials. These resources encompass a diverse range of raw materials like plant-based polymers, bioplastics, and recycled materials. From pipette tips to tubes and plates, these consumables offer a more sustainable alternative across various laboratory applications.



## Why should you embrace bio-based lab consumables?

- **Environmental impact:** The utilization of bio-based materials significantly reduces the carbon footprint of laboratories. By transitioning away from fossil-fuel-based plastics, these consumables contribute to curbing greenhouse gas emissions, conserving natural resources, and mitigating plastic pollution.
- **Enhanced sustainability:** Embracing bio-based lab consumables aligns scientific endeavors with sustainability goals. Researchers and laboratories play a pivotal role in fostering a circular economy by choosing environmentally friendly options that minimize waste generation.
- **Quality and performance:** Contrary to misconceptions, bio-based lab consumables boast quality, durability, and performance comparable to traditional counterparts. They exhibit excellent chemical resistance, sterility, and reliability, ensuring accurate and reproducible results in experiments and analyses.
- **Progressive innovation:** Embracing bio-based consumables signifies a commitment to innovation and adaptation in the scientific community. By championing these solutions, laboratories pave the way for future advancements in materials science and environmental consciousness.



## The role of laboratories in Sustainable Science

Laboratories serve as hubs of discovery, innovation, and knowledge creation. As stewards of scientific progress, the adoption of bio-based lab consumables empowers laboratories to lead by example in the pursuit of sustainability. Each decision to opt for renewable resources echoes a commitment to the greater good, fostering a culture of responsible scientific practices.



**Did you know that we use recyclable paper cooler boxes as an alternative to EPS boxes, whenever possible?**

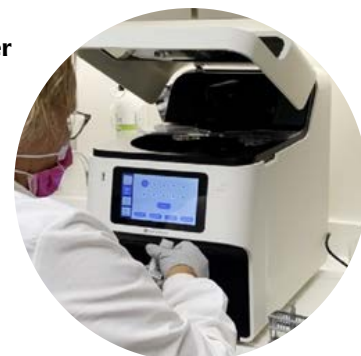
Most orders in Denmark, Sweden and Finland are sent this way, and soon Norway will join. For shipping materials in general our first priority is to use biodegradable materials. When that is not an option we aim to reuse plastic materials.

**At the Department of Pathology at Rigshospitalet in Denmark, 8700 cryo-section examinations are performed annually, making the department one of the largest centers in Europe for this type of urgent examination. Cryo-section examinations are acute histological examinations in which the tissue is frozen to make sections for microscopic assessment. Cryo-sections are used partly for assessment of margin in connection with surgical cancer treatment and partly for determining lesions and tumors - especially when cancer is suspected.**

## Q-Stain autostainer

Over the past year, the Department of Pathology, in collaboration with University College Copenhagen, has worked hard to improve cryo-section diagnostics to make it even more specific and safe. An interdisciplinary project group has been established for the project, which is named: ACUT (Automated Cancer Analysis Under Twenty Minutes), in which Q-Stain plays a central role.

The project has received funding from the Danish Regions and the Health Cartel Development and Research Fund and the interdisciplinary project group consists of: **consultant Tina Agander, medical laboratory technologist supervisor Camilla Qvist, medical laboratory technologist Josefine Staldgaard, chief medical laboratory technologist Majbritt Wagner-Eckert**, all from the Department of Pathology and **associate professor Julie Smith** from University College Copenhagen.



It is important for patients to get a quick clarification on their diagnosis. The Department of Pathology already has extensive experience with same-day assessment for head and neck patients in cancer patient pathways, where the patient is diagnosed and treated on the same day through cryo-section examinations.

It helps to even out some of the inequality in the healthcare system.

Q-Stain is implemented in the routine in connection with cryo-section examinations. It takes about 20 minutes to do immunohistochemical analyses (IHC) on the tissue, which should be added to the 20 minutes we already spend on making conventional cryo-sections. Within 45 minutes, it is possible for us to distinguish different types of cancer with much greater certainty. Our immune panel includes **CD45, synaptophysin, CKAE, CK5 and CK7 and eventually also Mart1**, which can be used to distinguish carcinomas, and neuroendocrine tumors from lymphomas and melanomas. It can help us make even more reliable diagnoses – especially in cases where we are in doubt. In addition, it is important that a tumor with clear margins is removed during the surgical cancer treatment.

The diagnostic effect of IHC on cryo-sections can have direct treatment consequences for the patient, also referred to as the predictive value. For example, it can be difficult to type a tumor by conventional cryo-section examination. Thus, it can lead to a result, which can indicate a malignant tumor (cancer) awaiting further analysis and final diagnosis. In these cases, the IHC can optimally categorize the tumor as either: **lymphoma (CD45+), melanoma (mart-1+), neuroendocrine tumor/carcinoma (synaptophysin+), or carcinoma (CK-AE+)**. This is important for severely ill patients who require emergency treatment, as the treatment depends on the type of tumor. Thus, for carcinomas, the first choice of treatment is radiation therapy, while for lymphomas it is chemotherapy.

ACUT plans to test and validate some of the predictive IHC markers that NovodiAx is developing for Q-Stain. If we succeed in implementing relevant predictive markers in routine diagnostics, it will speed up clinicians' ability to create a treatment plan early in the patient pathway. This will most likely improve the patient's prognosis and save many hospital visits between diagnosis and start of treatment. This will probably also save resources in an already pressured healthcare system.

In collaboration with AH diagnostics, our department is the **European reference laboratory for Q-Stain**. We look forward to the collaboration and the continued development of the platform's support for optimal patient pathways.



*Rigshospitalet in Denmark is at the forefront of raising the bar in cancer diagnostics. The Q-Stain is easy to use and fits into nearly any histology laboratory setting.*

Helle Knakkegaard,  
Product Manager Pathology

This article is written by Tina Agander, Consultant, Department of Pathology, Rigshospitalet, for AH diagnostics.

# The simplest, most powerful digital PCR workflow

The new Nio™+ offers a simple digital PCR (dPCR) workflow that supports 7 colors and flexible capacity of 16-768 samples per 8-hour workday. Enjoy continuous loading and user-friendly software.

## Nio+ dPCR system

### Why dPCR?

Digital PCR can be used for highly accurate DNA quantification. The main advantages of digital PCR include:

- Absolute quantification without the need for standard curves
- Higher sensitivity and precision
- Improved robustness against PCR inhibitors
- Better capability to analyze complex samples

### Nio™+:

The main advantages of the Nio+ include:

- **Flexible capacity:** Load 16-384 samples at a time
- **Continuous loading:** Add Chip Plates anytime, streamlining workflow scheduling
- **All-In-One:** No oil mess or plate transfers; simply load samples and press play
- **7 colors/21-plex:** Not used to multiplexing? No worries! We can help you design and validate your assays in up to 21-plex
- **Automation-friendly**
- **Quality control** right on the instrument by intuitive visuals

### Trusted by the world's leading scientists

*Using the Nio™+, we experienced peace of mind. Thanks to the continuous loading you never need to worry about the availability of the machine. It's a streamlined and simplified workflow.*

Dr. Alexandra Lespagnol, Biological Scientist, CHU de Rennes

*The Nio™+ workflow is a breeze. The software is very intuitive. It's a machine that works together with you and offers the flexibility for multiple users to run experiments on the same day.*

Wim Trypsteen, PhD, Postdoctoral Researcher, Ghent University, Co-Coordinator, Digital PCR Consortium



Experience the power and simplicity of Nio™+ for your digital PCR needs.

Biology is complex  
- seeing it in spatial context doesn't have to be



**It's with good reason that the majority of articles based on high-plex imaging utilize Imaging Mass Cytometry™ (IMC™) technology to generate data for their groundbreaking research.**

### Hyperion XTi

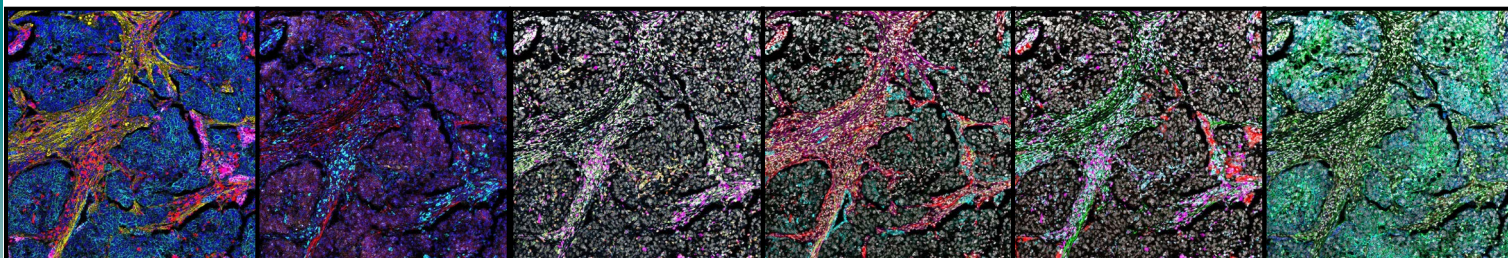
The Hyperion XTi, the third generation of IMC™ instruments, offers a workflow with one-step staining and detection. It enables simultaneous sample processing, acquisition, and analysis with an unbeatable number of protein markers. Now with a speed five times higher than former generations.



Discover the Fastest and Most Reliable Workflow for High-Plex Imaging with:

- No autofluorescence interference, enabling imaging of any tissue type.
- Simultaneous imaging of over 40 markers for expedited results.
- Protein and RNA co-detection for comprehensive insights.
- Integrated cell segmentation for swift interpretation.
- Batch staining capability for high-volume studies.
- Dual mode: imaging and flow cytometry for optimized investment.

### Spatial context applied - Human Lung Cancer



Overview PD-L1, DNA1, CD68, Collagen, E-Cadherin	RNA and Protein Co-Detection DNA1, RNA-T12-GAPDH, RNA-T3-UBC, alphaSMA, Ki-67, CD68	Immune Cells DNA1, CD68, CD45, GranzymeB, CD4	Structural Markers DNA1, alphaSMA, Vimentin, Collagen, Pan-Keratin	Immune Checkpoint Markers DNA1, PD-L1, CD68, CD45, alphaSMA	Cell Segmentation Kit ICSK1, ICSK2, ICSK3, DNA1
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*With the aim of stratifying patients, we used IMC, which is the perfect immunology tool above NGS, bulk RNA-seq and DNA-seq, to see the real story behind a cancer type and solve questions that have long plagued clinical scientists*

Yongpan Yan, PhD,  
Co-founder Beijing Gencode Diagnostics Laboratory

*Our ability to comprehensively measure tumor tissues - from single-cell pathways to cell-to-cell interactions and tissue morphology - will reveal which aspects of the tumor ecosystem to target.*

Bernd Bodenmiller, PhD, Assistant Professor for Quantitative Biology,  
University of Zurich (UZH)

*...It gives you information that few other tools can provide: the ability to look at 30 different things at once yet maintain the two dimensional spatial information, giving us the power to discriminate biology beyond a single point measurement.*

Yongpan Yan, PhD,  
Co-founder Beijing Gencode Diagnostics Laboratory

### Ready to revolutionize your research?

Learn how you can achieve unparalleled multiplex detection and sensitivity, facilitating accurate quantification and visualization of the tissue microenvironment.

Contact us today to learn how to unlock the power of CyTOF® and IMC™ technology to give you answers on your scientific questions.



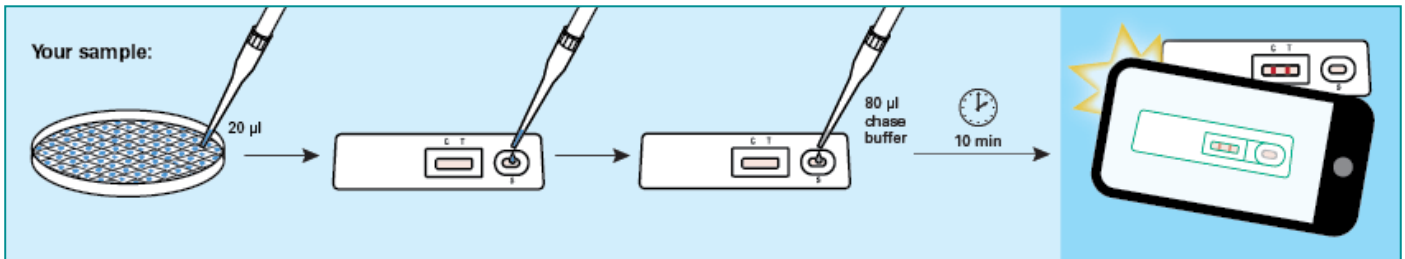
Read the full articles cited, and learn more about the technologies.

# 10-minute lentiviral vector titration or cytokine quantification



**GoStix Plus combine a lateral flow-based detection method with an accompanying smartphone app to enable rapid quantification from cell culture supernatants or serum samples.**

## GoStix™ Plus

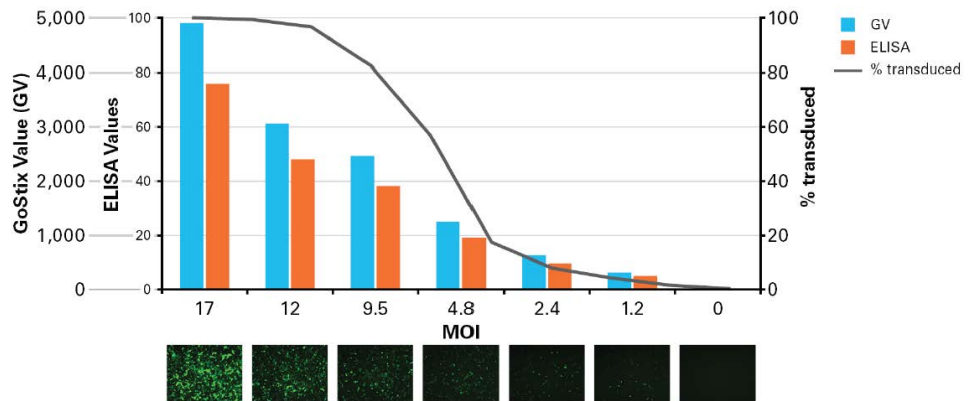


GoStix Plus workflow. Apply 20 µl of sample to a GoStix lateral flow cassette followed by 80 µl of chase buffer. Wait 10 min for the test to run then scan the cassette using the GoStix Plus smartphone app.

### Lenti-X™ GoStix Plus

Provides a rapid, simple, and effective method for instantly quantifying lentivirus in packaging cell supernatants. The quantitative output from the Lenti-X GoStix App (referred to as a GoStix Value, or GV) can be used to compare virus amounts between different preparations in a manner similar to, but far easier and quicker than, an ELISA, and allows for calculation of actual IFU/ml using a reference virus.

- Quantify lentivirus titer in 10 minutes using a simple smartphone app
- Determine the optimal time to harvest lentiviral supernatants
- Achieve consistent transduction performance for your experiments

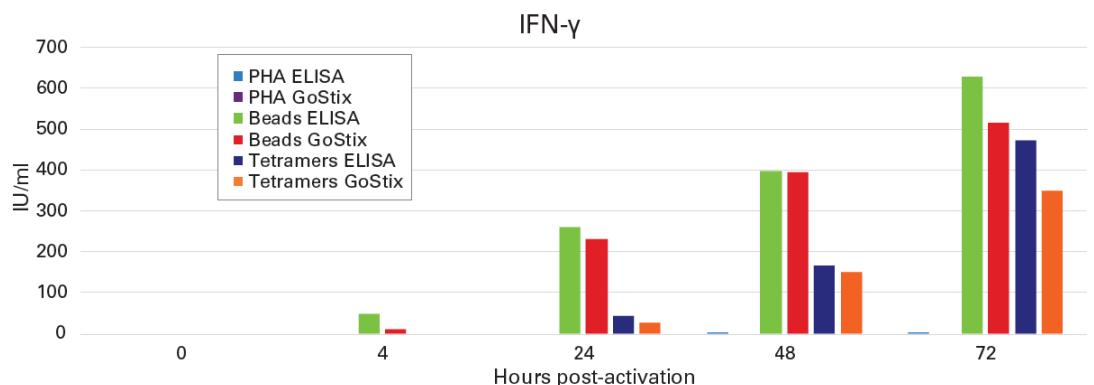


Working with lenti-viruses? More exciting news launching soon!

### Cytokine GoStix Plus assays

Enable accurate cytokine quantitation, with reproducibility comparable to an ELISA. Cytokine quantification is often an important step in elucidating immunological processes or assessing immune cell phenotypes. GoStix Plus assays enable accurate cytokine quantitation in ~10 minutes, providing reproducibility comparable to an ELISA in a fraction of the time.

- Rapidly quantify human cytokines from cell culture supernatant or serum samples using a simple, 10-minute assay that performs comparably to an ELISA
- Obtain accurate, reproducible results without extensive technical expertise or expensive equipment
- Conserve resources by identifying the most promising candidates for further analysis
- Accelerate your research by obtaining results immediately rather than waiting days or weeks to accumulate enough samples for processing in high-throughput formats



# Flexibility with Uncompromising Performance – From In Vitro Molecular Assays to In Vivo Imaging



**The Sapphire™ FL Biomolecular Imager is the ultimate flexible biomolecular imager. With customizable and user-changeable laser and filter modules, the Sapphire FL easily adapts to a lab's changing needs and advancing research.**

Sapphire™ FL

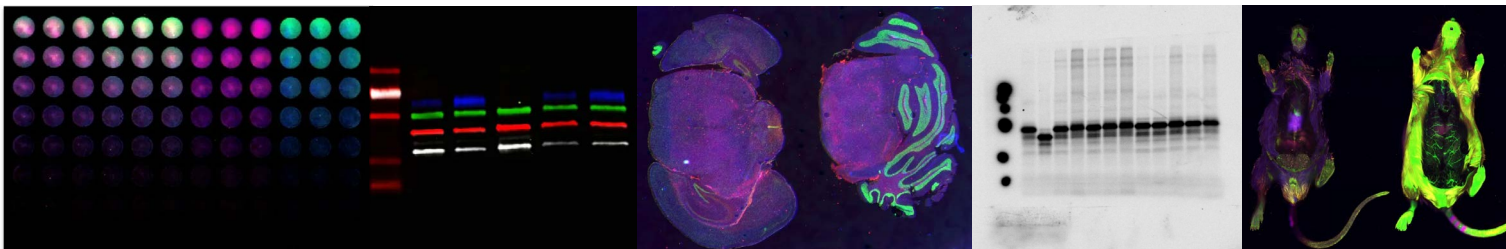
## The Next Generation of Laser Scanning Systems

- 5 micron resolution
- Adjustable focus for sample thickness - Z-plane range from -1 to +6 mm
- 5 anaesthesia ports for imaging small living animals
- Near infrared (NIR) and red/blue/green (RGB) fluorescence imaging
- Chemiluminescence detection through the Chemiluminescence Module
- Phosphor imaging



**Image all the samples you can imagine!**

- Southern, northern & western blots – Multiplex westerns – Total protein normalization – In-cell westerns
- Cell based assays – Agar plates – Microarrays – DNA & RNA gel imaging – Protein gel imaging – Multiwell plate imaging – Coomassie – Silver stain – Phosphoprotein studies – Tissue section imaging
- Small animal imaging – Plant bioluminescence imaging



## Nominated to Best New Life Science Product of 2023

The Biomolecular Imager is a nominee for the **SelectScience® 2024 Scientists' Choice Awards Best New Life Sciences Product of 2023.**

The Scientists' Choice Awards honor the best new laboratory products from the previous year. The Sapphire™ FL is one of 11 products on the short list of nominees for the prestigious award.

*We are proud of the Sapphire FL's ability to support our customers by meeting their diverse imaging needs. It was designed to allow research-driven experimental design and put an end to research dictated or limited by laboratory instrumentation.*

Lisa Isailovic, Vice President of Marketing, Azure Bio Systems





# New suppliers and products for your lab

**In AH diagnostics, we focus on offering products that are at the forefront of scientific and technological development and knowledge.**

**Discover new and exciting suppliers and products!**

## New supplier: MS Validated Antibodies

MS Validated Antibodies (MSVA) is devoted to delivering optimal monoclonal antibodies for immunohistochemistry and to provide the users with a unique product documentation enabling them to know as much as possible on their antibodies. Key features of the MSVA package include:

- Highly stringent criteria for product selection: Only 150 out of the first 5500 evaluated antibodies were selected for the MSVA portfolio
- Unique product documentation including images from more than 50 different normal tissues and more than 20 tumor images per antibody
- Protocol suggestions for manual staining and autostainers (Dako, Leica, Ventana).
- Published data on the performance characteristics of antibodies are compiled on the MSVA website (if available)
- Extensive educational content is provided for every antibody including links to other relevant sites



## New Products from Dominique Dutscher: BIOBased CLEARLine® products

You don't have to compromise quality or performance in your lab, to make better choices for our common future.

The CLEARLine® products have gotten an extension in the form of new bio based cryo- and microtubes made from 90% certified biobased plastic. These products are ISCC Plus and, as the first in their category in Europe, ACT certified.

- Cryotubes come in 1,2-5 mL
- Microtubes come in 0,5-5 mL
- Lowbinding options available
- Made from 90% biobased plastic from renewable feedstock



# Your shopping experience elevated!

**We have given our website a facelift. This means that you now have easier access to our extensive portfolio of products for every aspect of your workflow and lab.**

This also means that you can see your specific prices directly in the shop - just log in and put in your basket!

You can also now see your previous orders, so it is easier to make reorders and see when you may need a refill on your most used products.



### We are here for you

Even with our new website, our competent and highly educated team of Internal Product Specialist are still ready to guide you.

They can help you find the right product for your needs and ready to support you if you have questions for creating a new user on our website.

As always you can contact us through email or phone.

## Selection guides



Tips, plates: our compatibility guides

**Don't know what tip fits your pipette? Or maybe you don't remember which PCR plates fits your Thermocycler?**

You can now use our selection guides to find tips and PCR plates that fit your existing equipment.

Enter the brand of the product you own alongside some details and find a selection that fits your needs. From there you can put the product directly in your basket.



**Did you know that you can now get a punch-out solution for your purchase department?**

Contact us to learn how, and start the process for even easier shopping to stock up your laboratory!

Do you want to become more efficient in your day-to-day work in the lab?

**Improvement or inspiration – our seminars and workshops offer you the latest insights in technology and research, so you can stay updated and get the most out of your workday. Seminars and workshops we offer:**

- qPCR – Everything you need to know about qPCR
- DNA and RNA purification - What is in the black box
- Flow Cytometry – Tips and tricks in panel design
- Western Blot – Imaging improved!
- Single Cell NGS Library Prep - Optimal preparation of your single cells
- ELISA and arrays – Tips and tricks
- IHC – Tips and tricks

**Book a seminar or workshop for your lab – call us to learn more.**

**Didn't find a topic you are interested in?**

**Call us either way – we have many other topics available!**



Don't miss out on our events! Sign up for our newsletter & follow us on LinkedIn

SCAN or CLICK

**Can't wait? We already have some new seminars and workshops planned!**

**- You can also find us at meetings and exhibitions.**

- Navigate in the world of ELISA's from basics to trusted solutions, webinar, All countries
- Explore diverse applications using confocal imaging, widefield imaging and multimode detection, webinar, DK, SE & FI
- Chembio 2024, FI
- National yearly meetings for Pathology, All countries
- Bioclinicumdagen, SE



# Meet your AH diagnostics Specialists

## The Nordic Team



## The Danish Team



## The Swedish Team



## The Norwegian Team



## The Finnish Team



## The Service Team



We are happy to help you find the best solutions for your laboratory.

Please contact us or visit our website to get started!

Follow us on LinkedIn

**AH** diagnostics

AH diagnostics A/S • Gammel Viborgvej 11A • DK-8381 Tilst • Tel.: +45 8745 9010 • ahdiagnostics@ahdiagnostics.dk • www.ahdiagnostics.dk  
AH diagnostics AB • Solna Torg 19 • SE-171 45 Solna • Tel.: +46 (0)8 680 0845 • ahdiagnostics@ahdiagnostics.se • www.ahdiagnostics.se  
AH diagnostics AS • Postboks 4499 Nydalen • NO-0403 Oslo • Tel.: +47 2323 3260 • ahdiagnostics@ahdiagnostics.no • www.ahdiagnostics.no  
AH diagnostics Oy • Karhumäentie 3 • FI-01530 Vantaa • Tel.: +358 (0)10 325 3000 • ahdiagnostics@ahdiagnostics.fi • www.ahdiagnostics.fi

# SPRING OFFERS

02.04-30.06 2024

## Essentials for your lab

Try our tips in Hybrid racks and use 70% less plastic in you lab

Paperboard base and lid are easily recyclable.

- The deck is made of polypropylene number 5 which can be recycled in the specific container, following your country's regulations
- Hybrid design uses 70% less plastic than a traditional tip rack; close to 3kg of plastic saved per case
- Combination of sturdy polypropylene deck and strong paperboard base allows for stable pipetting directly from HybridRack, even with Multi-Channel
- Pack box is made from 100% recycled material, 50% post consumer content

► **Save 30% on hybrid racks**



## Low binding CLEARLock® CLEARLine® microtubes

The low Binding Protein and DNA Microtubes are designed to minimize protein and DNA loss particularly essential for low concentration samples, providing the ideal solution for both sample preparation and long-term storage.

Biosigma Low-bind material ensures optimal sample recovery for best and reproducible results reducing the risk of interference with the samples.

Each batch is certified free from human DNA, DNase, RNase, ATP, endotoxins, and PCR inhibitors.

► **Save 30% on all low binding CLEARLock® CLEARLine® microtubes**

- Hinged lid prevents any unintentional opening during use
- Centrifuged at:
  - 0,5ml - 1,5ml - 2,0ml 17,500 rpm - 30,000 x g
- Temperature of use: -80°C + 100°C



## 96 multiwell plates for ELISA or other assays

Polystyrene plates and lids suitable for ELISA and other assays. Find the fit for your lab.

► **Save 30% on 96 multiwell plates and lids**



Plates

Cat. no.	Bottom	Sterile	Units/box
390963	U	No	50
390966	U	Yes	50
390964	V	No	50
390967	V	Yes	50
390965	Flat	No	50
390968	Flat	Yes	50

Lids

390969	393970
Non sterile	Sterile
50 units/box	50 units/box

Please state the following campaign code when ordering offers from this page: **CM00429**

# Extraordinary Sensitivity and Dynamic Range on your fluorescence reader

DeNovix®

Maximize your fluorometer's potential with DeNovix Fluorescence Assay Kits. Achieve sensitivity and dynamic range unmatched in today's market. With kits for dsDNA and RNA quantification, DeNovix ensures accurate quantification even in the presence of common contaminants.

► **Save 20% on all Fluorescence Quantification Assay Kits and DS-11 instruments Denovix**

## The only All-in-One microvolume and cuvette absorbance with fluorescence design

Absorbance and Fluorescence quantification are unique but complementary methods for assessing concentration and quality of biological samples.

The multi-award winning DS-11 Series of 1 µL Spectrophotometers and Fluorometers provides the most sensitive and widest dynamic range for UV-Vis absorbance and fluorescence capability in one combined instrument.

Please use campaign code when ordering: **CM00427**



# Most sensitive and reliable ELISA kits for detection of cAMP/cGMP

Enzo®

cAMP and cGMP ELISA kits for sensitive, accurate, and reproducible results.

► **Save 20% on all cAMP and cGMP ELISA kits from Enzo**

Enzo kits are known to be:

- Functional – Validated in multiple sample matrices and for multiple species
- Specific – Low reactivity with structurally related molecules
- Sensitive – Measure low endogenous levels with ease
- Flexible – Fast and easy to use and adaptable to automated equipment for higher throughput systems
- Highly cited and trusted - find the citations on each product page.

Please use campaign code when ordering: **CM00428**



Save  
20-25%

# Visualize cellular responses with CELLestial fluorescent probes

Discover a large portfolio of fluorescent probes and assay kits for cellular analysis, that provides a complete set of tools for monitoring cell viability, proliferation, death, oxidative stress and toxicology by flow cytometry, microscopy, and microplate platforms.

► **Save 25% on CELLestial Assay kits & dyes from Enzo**

Cell Death & Viability kits:

- LYSO-ID® Red cytotoxicity kit (GFP-CERTIFIED®)  
- Only commercial assay available that allows for long-term cell monitoring of cytotoxic effects.
- GFP-CERTIFIED® Apoptosis/Necrosis detection kit  
- True multiplexing capabilities with GFP and other green fluorescent probes.
- NUCLEAR-ID® Blue/Red cell viability reagent (GFP-CERTIFIED®)
- PROTEOSTAT® Aggresome detection kit

Cell Structure & Organelle Detection kits

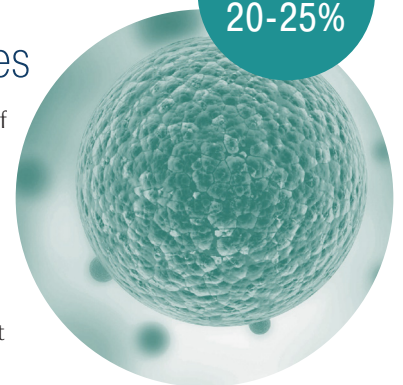
- NUCLEAR-ID® Blue DNA stain (GFP-CERTIFIED®)
- MITO-ID® Red detection kit (GFP-CERTIFIED®)

Cell Function kits

- GFP-CERTIFIED® FLUOFORTE® Calcium assay kit
- ROS-ID® Hypoxia/Oxidative stress detection kit  
- Sensitive hypoxia dye fluoresces red when converted by nitroreductase. Total ROS dye enables simultaneous detections of hypoxia (red) and ROS (green).
- ROS-ID Total ROS detection Kit

**And many more....**

Please use campaign code when ordering: **CM00426**



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www.ahdiagnostics.no

All offers are valid until June 30, 2024. Offers can not be combined with any other discounts. We are not liable for typographical errors.