GERMAN INNOVATION AWARD '24 WINNER

GERMAN DESIGN AWARD WINNER 2025

FastGene® FAS-X

AWARD-WINNING INNOVATION

BRINGS SAFETY WITH ADVANCED BLUE/GREEN LEDs

ENHANCES USER EXPERIENCE WITH ICON-BASED SOFTWARE

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NIPPON Genetics EUROPE
INNOVATION FOR YOU

From vision to award-winning innovation: the story of FAS-X

A letter from CEO, Jürgen Lünzer

At NIPPON Genetics EUROPE, we are driven by one question: How can we make your work easier, safer, and more efficient? With this in mind, we created the FastGene® FAS-X—a gel documentation system.

Launched in January 2024, the FAS-X is compact, intuitive, and powerful. Its 13.3" full HD touchscreen, 128 GB storage, and network compatibility simplify workflows; no external computer is needed. A 20 MP color camera ensures high-resolution, publication-quality images, detecting nucleic acids as low as 2 ng.

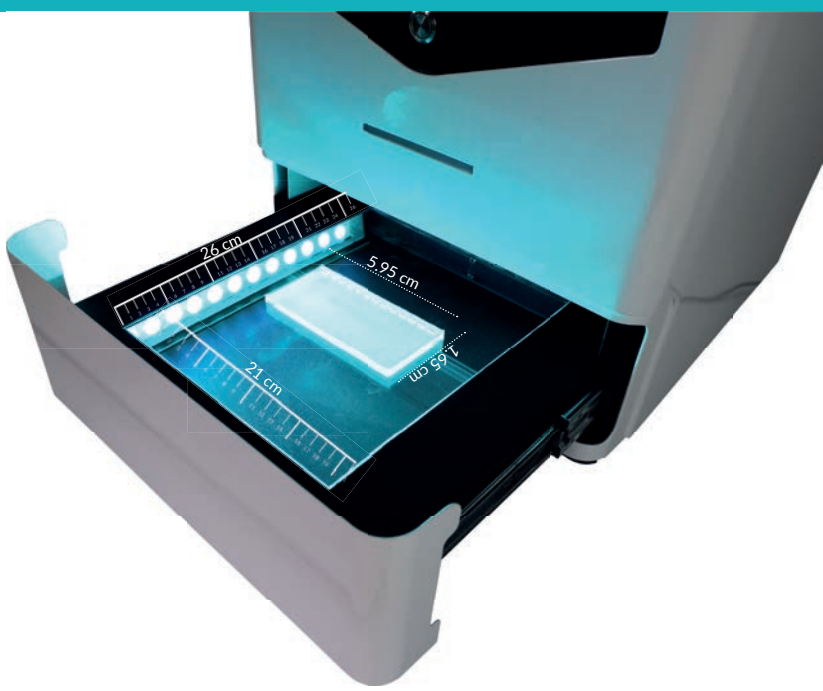
But what truly sets the FAS-X apart is its Blue/Green LED technology—the safest illumination for gel documentation. By eliminating harmful UV exposure, it protects both your DNA and your team. Its wide excitation spectrum offers unmatched flexibility, making it compatible with a broad range of nucleic acid stains, protein stains, and fluorescent proteins. In recognition of this, the FAS-X was honored with the German Innovation Award 2024 for its advanced technology and intuitive, icon-based software.

And the recognition didn't stop there. In early 2025, we were honored with the German Design Award, celebrating the FAS-X's perfect balance of functionality and aesthetics—because we believe innovation should not only work flawlessly but also be a joy to use every day.

To everyone who has supported and shaped the FAS-X, ***thank you.*** *Your trust drives us to innovate and push the boundaries of lab technology.*

With gratitude,
Dr. Jürgen Lünzer
CEO, NIPPON Genetics EUROPE

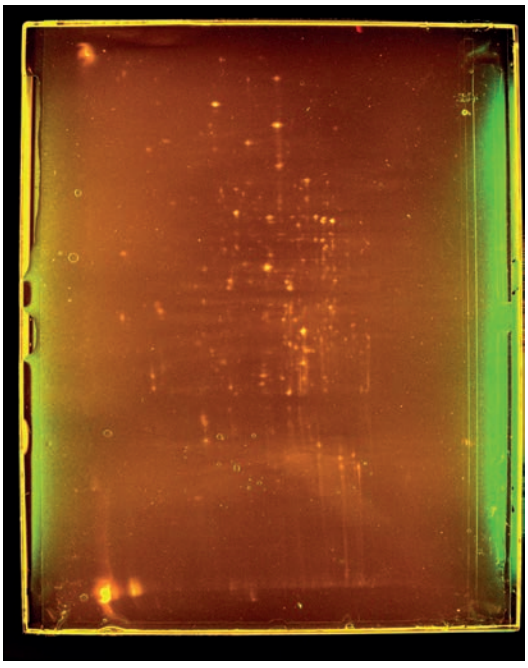
Eliminate the need for multiple imaging sessions



The FastGene® FAS-X features the **biggest transilluminator** on the market, with a massive **26 cm × 21 cm** illumination area.

This expansive size allows you to **capture multiple gels in a single shot**, saving time and streamlining workflows.

2D gel



Whether you're working with **standard gels, large-format gels, or even oversized 2D gels**, the FAS-X accommodates them all—**eliminating the need for multiple imaging sessions**.

Revolutionary BG LED

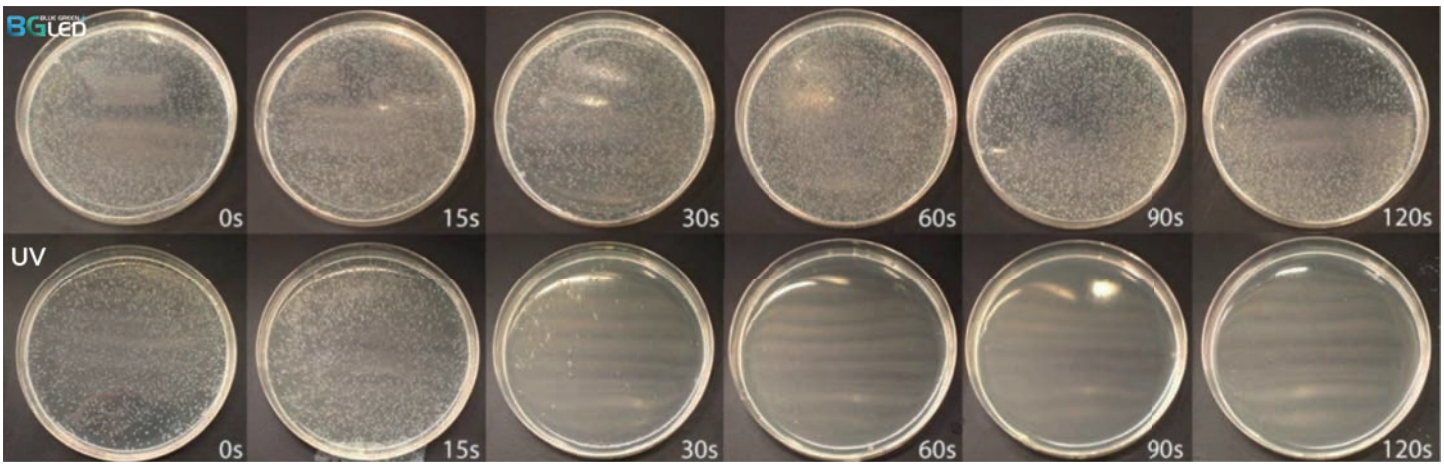
Protect yourself and your samples with Blue/Green LEDs

Unlike UV light, which poses risks to both users and samples, Blue/Green LED technology operates at 470–520 nm within the visible spectrum, making the gel documentation process safer for both.

Keep your sample integrity with Blue/Green LEDs

UV light can cause significant DNA damage, such as thymine dimer formation, which disrupts replication, transcription, and compromises experimental results.

In an experiment (figure below), DNA exposed to **UV light showed a dramatic reduction in bacterial colonies after just 30 seconds**, highlighting the extent of the damage. In contrast, when the same experiment was conducted **using Blue/Green LEDs, the DNA remained intact, and bacterial colonies were unaffected, even after prolonged exposure**.



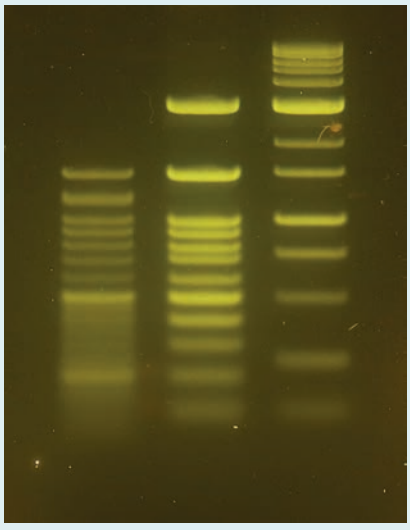
Bacteria transformed with DNA fragments coding for antibiotic resistance and plated on agar plates containing antibiotics. Prior to transformation, the DNA fragments were exposed to UV and Blue/Green lights for varying durations (0 to 120 seconds).

Choose higher performance

Traditional Blue LED transilluminators, emitting light at a single wavelength of 470 nm, often fall short in performance. Their narrow wavelength range leads to inefficient excitation of many DNA dyes, causing lower signal intensity and higher background noise. As a result, DNA band signals become weaker, and image quality suffers. This lack of versatility also limits the ability to work with various dyes and fluorescent proteins, forcing researchers to use multiple devices, which complicates workflows and increases costs.

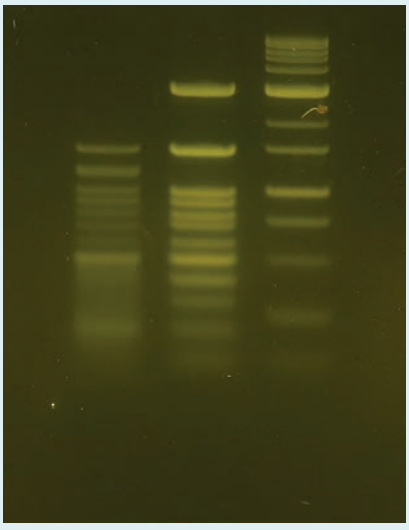
In contrast, **Blue/Green LED** technology provides **superior performance and sharper results**.

MIDORI[Green] Xtra dye illuminated with BG BLUE GREEN LED

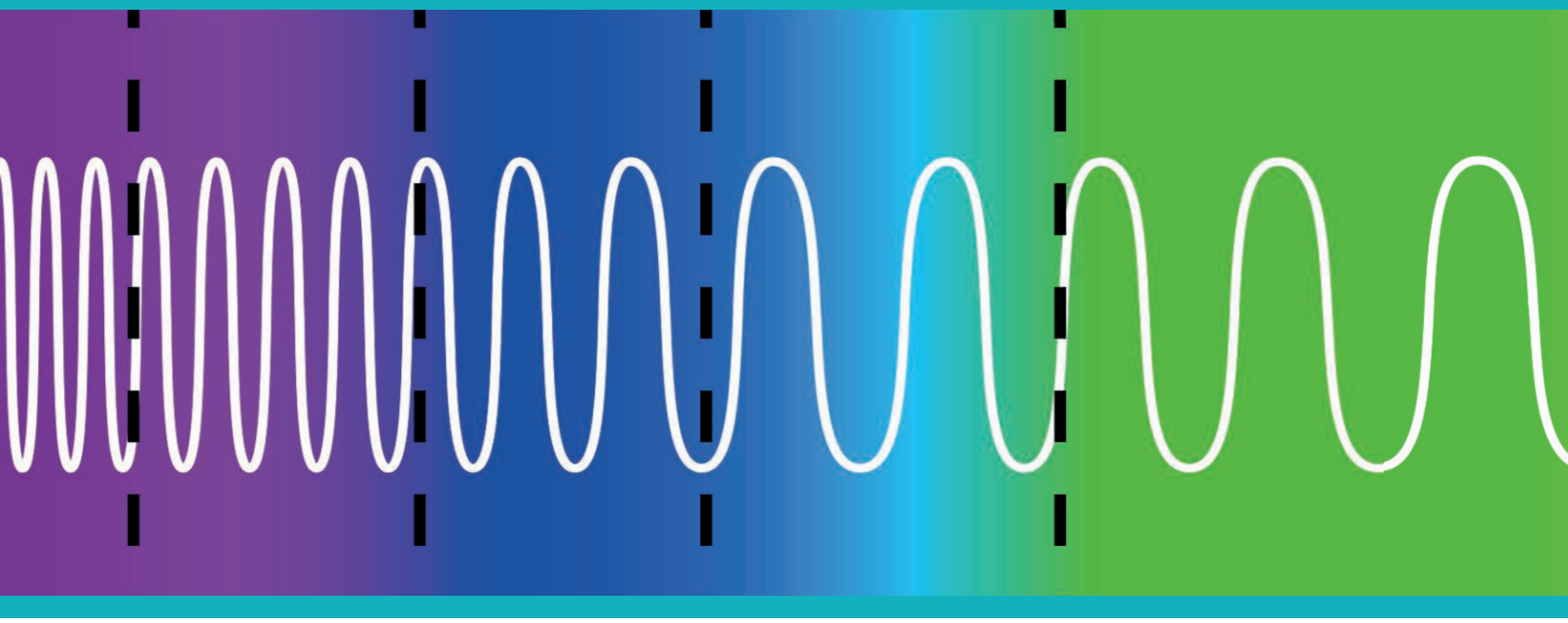


MIDORI[Green] Xtra dye (www.nippongenetics.eu/en/midori-green-xtra) excited using Blue/Green LED light.

MIDORI[Green] Xtra dye illuminated with Blue LED



MIDORI[Green] Xtra dye (www.nippongenetics.eu/en/midori-green-xtra) excited using Blue LED light.



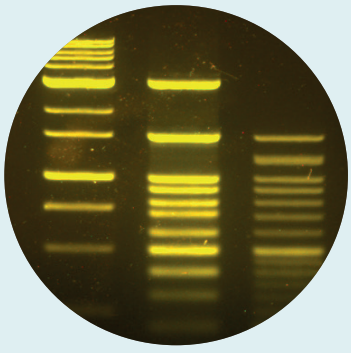
One light source for DNA/RNA & proteins

Detect DNA, RNA & fluorescent-labelled proteins with highest intensity

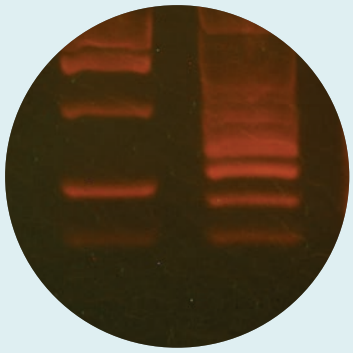
In addition to its remarkable safety, the integrated Blue/Green LED transilluminator effectively excites a wide range of common **green and red fluorescent dyes** as well as fluorescent proteins such as GFP, RFP, and YFP with very high intensity.

BG BLUE GREEN LED

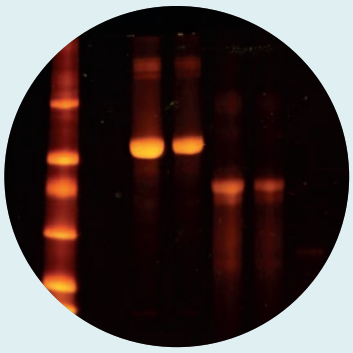
Fluorescent dyes



MIDORI[Green] Xtra DNA stain



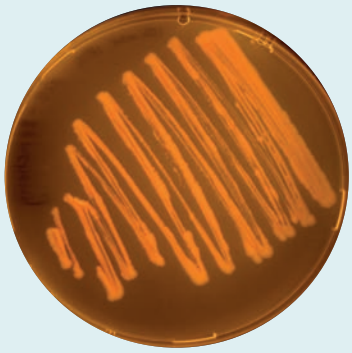
GelRed® DNA stain



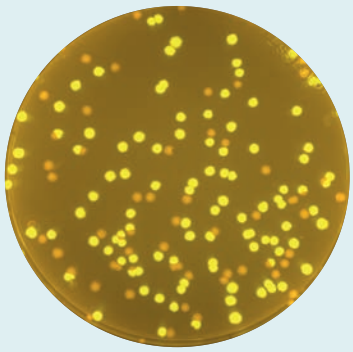
SERVA Lightning Red protein stain

Fluorescent proteins

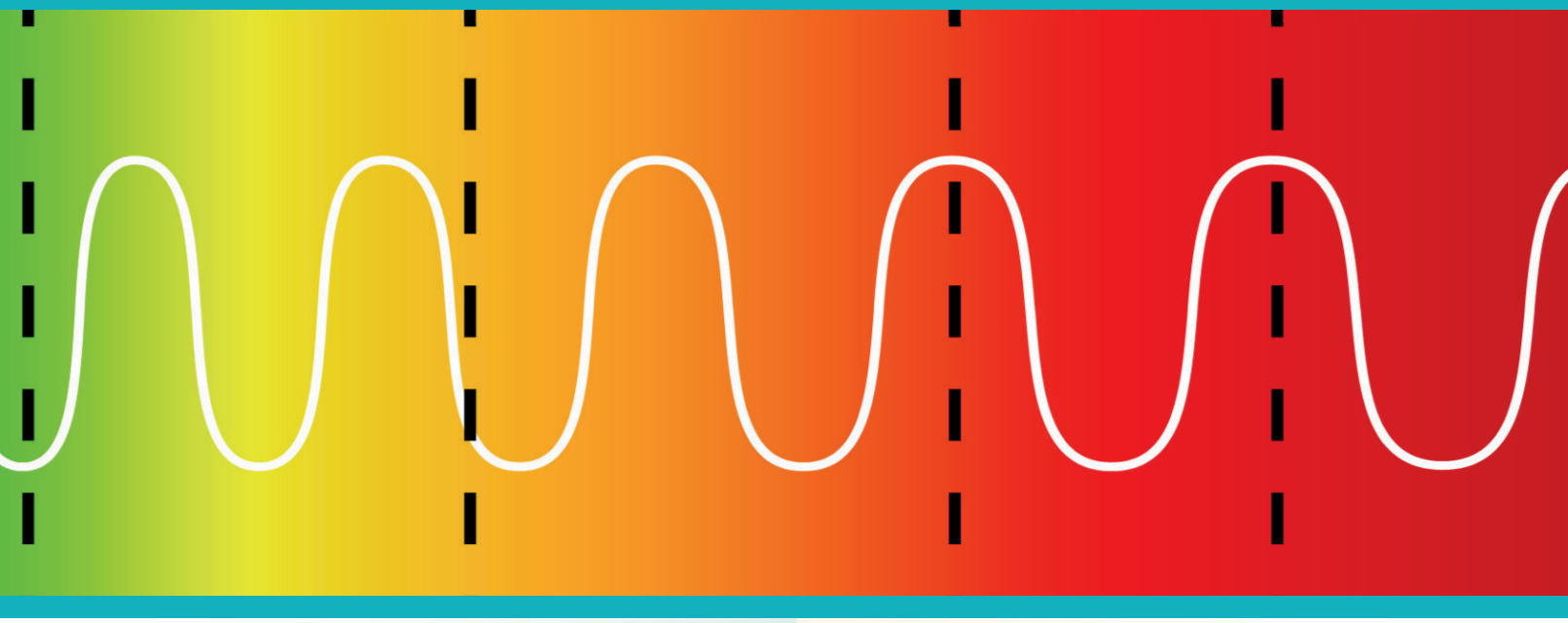
GFP



mCherry



YFP & RFP



Green emission

- MIDORI Green dyes
- SYBR™ Safe
- SYBR™ Green I & II
- SyGreen®
- GelGreen®
- GelStar®
- GreenView™
- HydraGreen™
- RedSafe™

Yellow emission

- SYBR Gold™
- Diamond™

BLUE GREEN BG LED

DNA dyes compatible

Red emission

- Ethidium Bromide
- GelRed™
- SafeRed™

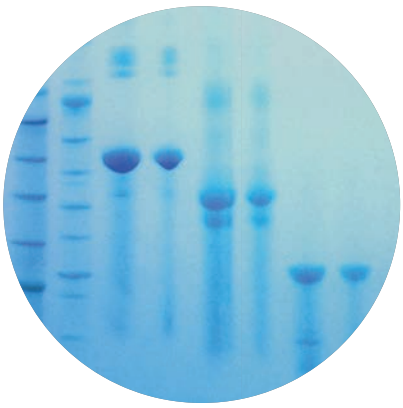
Powerful white light

Documentation beyond fluorescent gels

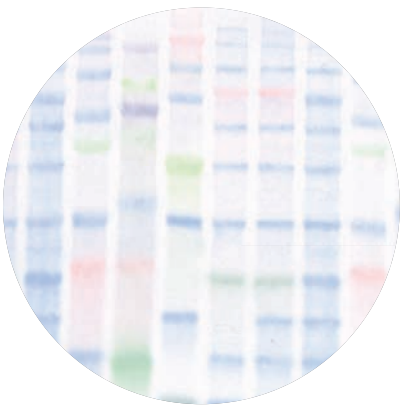
The filter wheel in the FAS-X offers the advantage of effortlessly switching between Blue/Green LED light and the epi-white LED light mode.

Together with the included white light plate (FG-07CE) , the epi-white LED light mode can be used to visualise **colourimetric PAGE protein gels** with an **impressive quality**.

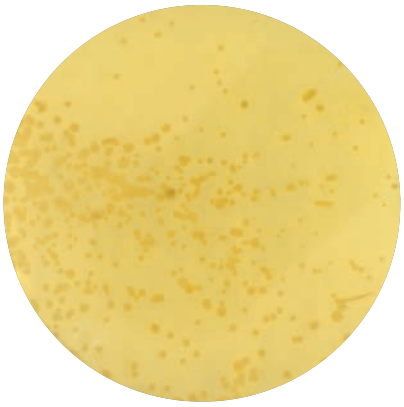
In addition, high-resolution images of (colourimetric) **Western blot membranes or bacterial colony plates** can be obtained in epi-white LED light mode.



Coomassie-stained PAGE protein gel



Western blot membrane



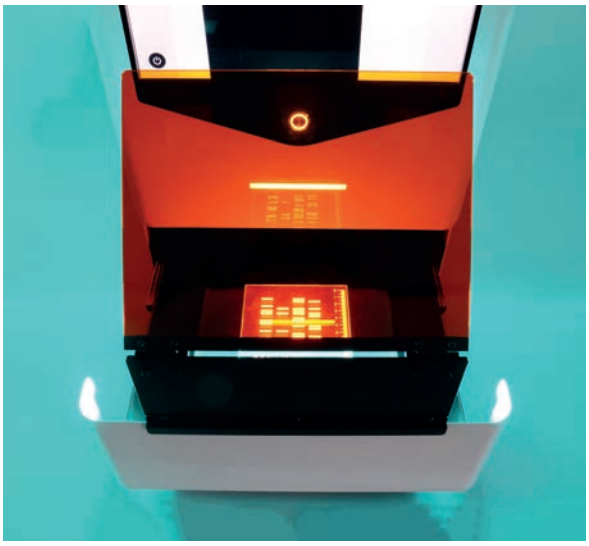
Bacterial colony plate

Comfortable gel band excision with Amber Board for FAS-X

Fast setup, effortless use

The Amber Board for FAS-X is a useful accessory when cutting gel bands.

With its intuitive magnetic attachment, the Amber Board for FAS-X **securely fits onto the FAS-X** gel documentation system drawer in just seconds. **No tools, no complicated installation**, just snap it into place and focus on your work. When not in use, it detaches just as easily for convenient storage.



More space, more comfort

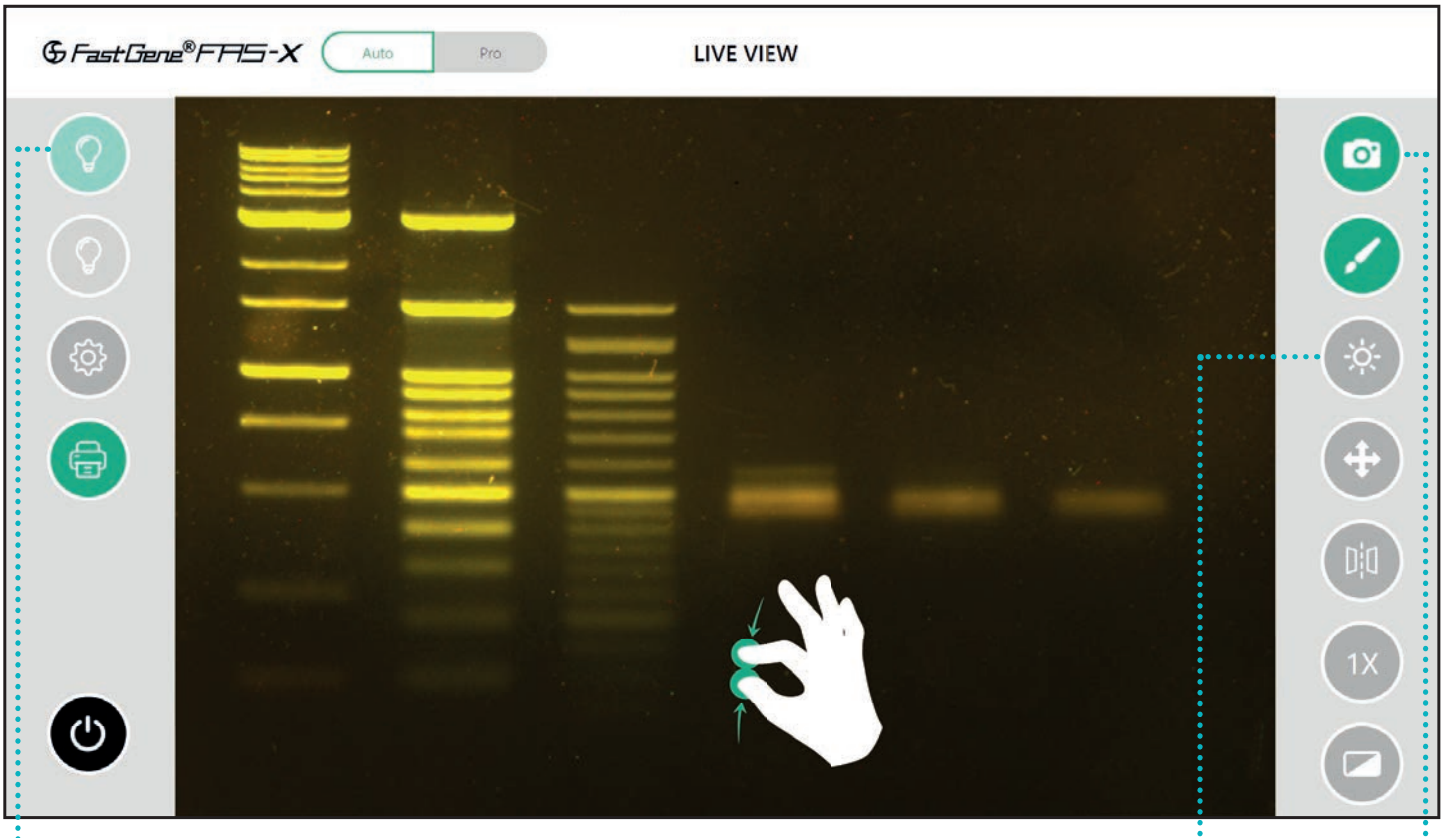
Unlike traditional filter shields that may obstruct movement, the Amber Board for FAS-X is designed with **ample hand space**, allowing you to **excise gel bands comfortably and effortlessly**. This means a smoother workflow, even when working with delicate samples.

WELCOME TO FastGene® FAS-X

Intuitive software

Just 3 taps to get the perfect gel image

With FAS-X, you can **zoom in and out effortlessly, just like on your phone**, making gel analysis faster and more precise! The creation of a perfect gel image has never been easier. The **intuitive, user-friendly software** ensures **simplifies operation**, all easily accessible on the **large, high-resolution 13.3" touchscreen**.



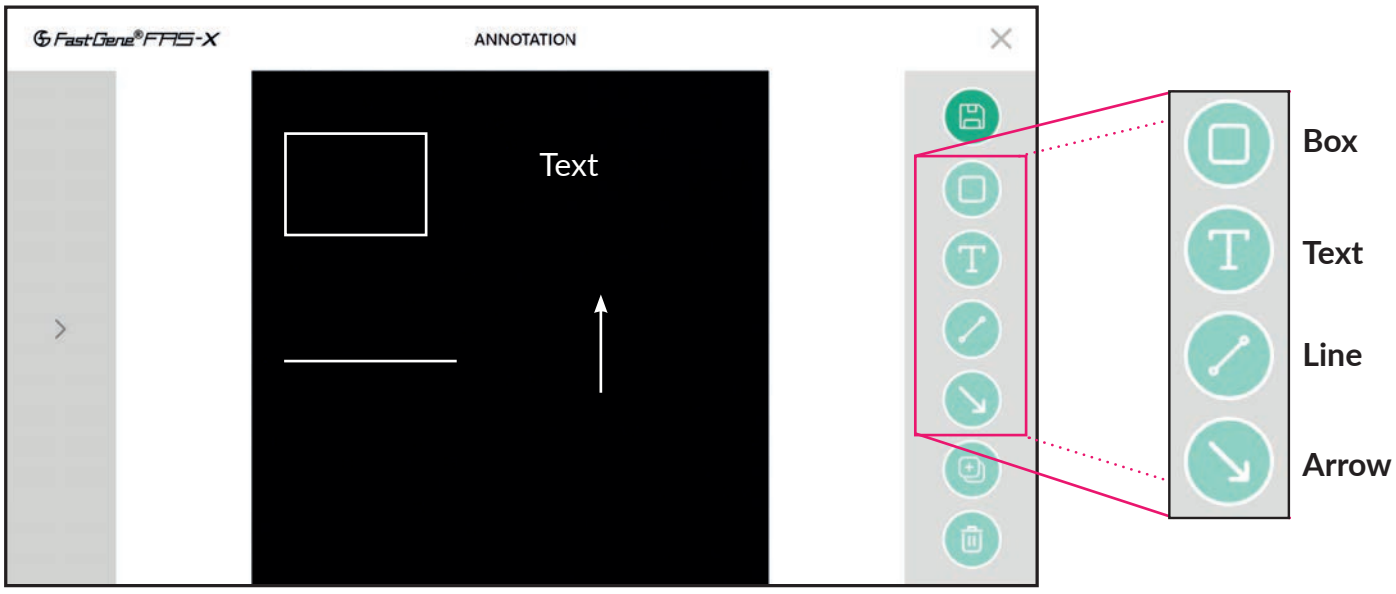
1. Turn on the Blue/Green LED lamps

2. Adjust the brightness

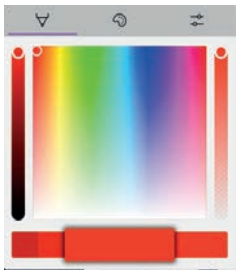
3. Capture the image

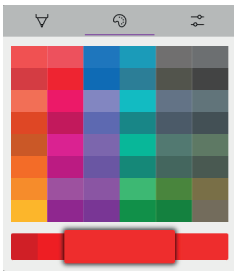
Annotate, highlight, and enhance your data for clear and precise documentation

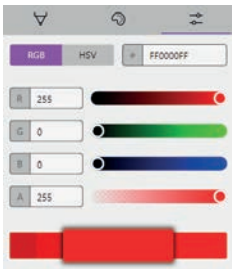
Take your gel documentation to the next level with built-in **annotation tools**. Add text, boxes, lines, and arrows directly to your images to **highlight key bands, mark important details, and enhance data clarity** — making it easy to customize and communicate your findings with precision.

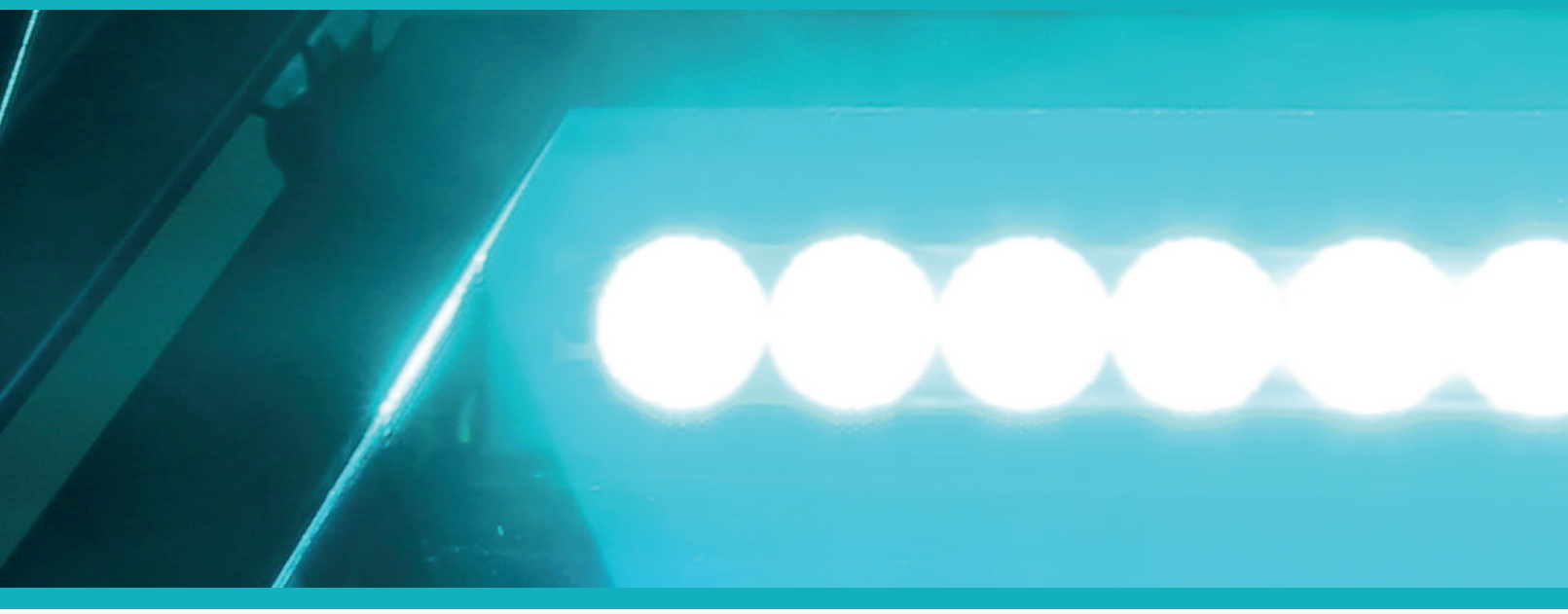


Each annotation can be customized with a color of your choice, selected from a palette of custom options, including black and white for quick selection.









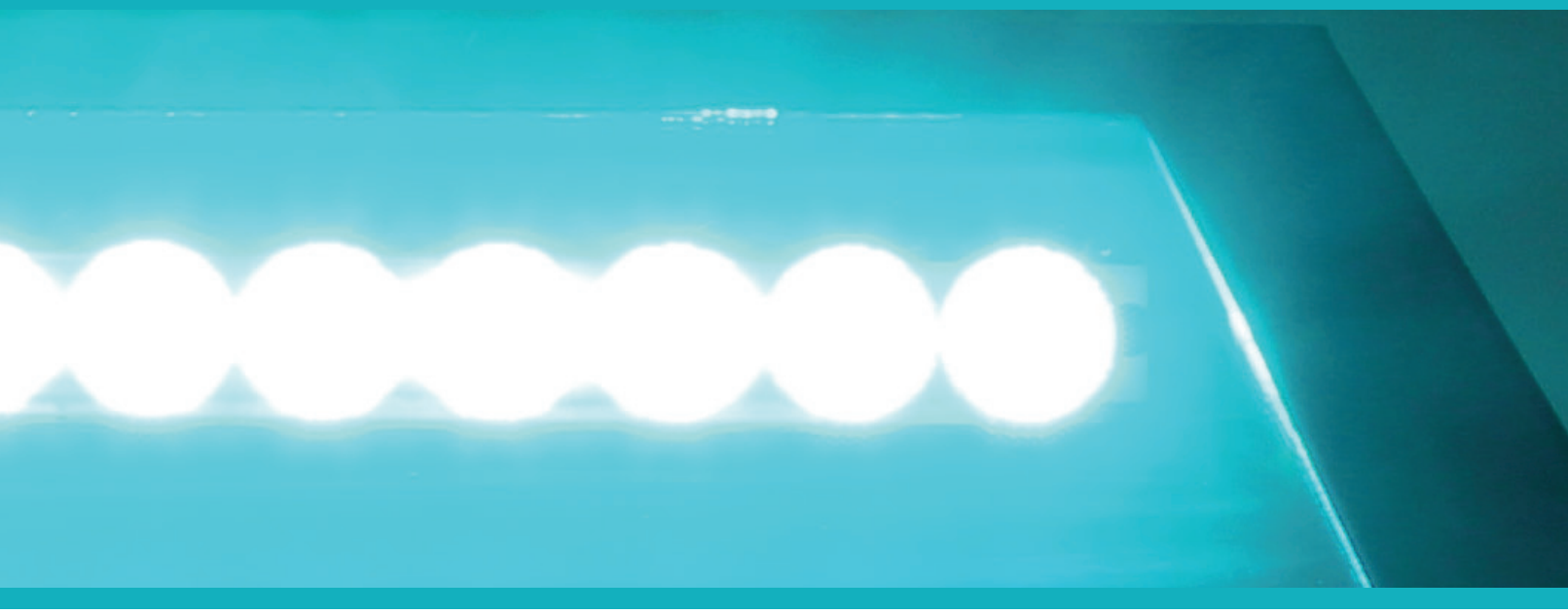
Technical specifications

See to believe

Camera	
Camera sensor type	Scientific-grade CMOS
Image resolution	20 MPixel, (5472 px x 3648 px)
Image format	JPEG, TIFF, PNG, BMP
Exposure time	13 µs to 10 sec

Light sources	
Light sources	Blue/Green LED transilluminator (470-520 nm) Epi-white LED light
Transilluminated area	26 cm x 21 cm

Footprint	
Dimensions (H x D x W)	53.2 cm x 44.3 cm x 37.5 cm
Weight	20 kg



Display/Software/Connections	
Display	13.3” full HD touchscreen
Display resolution	1920 x 1080
Internal storage	128 GB
Connections	LAN, 3x USB 3.0
Software	FAS-X imaging software
Rated voltage	100-240 V, 50 / 60 Hz Power adapter 24 V, 6 A

Housing	
Material	Coated aluminium material
Access	Loading drawer
Status LED	Installed in the front

Accessories included	
Filter goggles	Amber goggles (Cat. No.: GPG)
Protein gel imaging	White light plate (Cat. No.: FG-07CE)
Band excision	Agrose gel band cutter (Cat. No.: FG-830)

Additional acessories	
Filter shield	Amber Board for FAS-X (Cat No.: FAS-DGOF3)

Workflow

NIPPON Genetics EUROPE DNA gel documentation portfolio

We offer products for the entire workflow of DNA gel documentation. From agarose, gel casting and electrophoresis equipment, safe DNA dyes, DNA markers to the new FastGene® FAS-X gel documentation system with the best software to get a perfect gel image.

Agarose

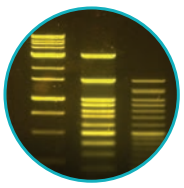
- FastGene® Agarose (AG01, AG02)

Gel electrophresis system

- Mupid™-One (MU2)

Safe DNA staining

- MIDORI[Green] Xtra (MG10)
- MIDORI[Green] Easy (MG12)
- MIDORI[Green] Direct (MG06)



DNA markers

- FastGene® 50 bp DNA Marker (MWD50)
- FastGene® 100 bp DNA Marker (MWD100)
- FastGene® 1 kb DNA Marker Plus (MWD1P)

Gel documentation system

- FAS-X (GP-FAS-X)

Ordering information

Cat. No.	Product
GP-FAS-X	FAS-X Gel documentation system

Get your personal demo of the FAS-X!

Get in touch with us and you will receive a complete product demonstration, or a demonstration adjusted to your specific needs!

www.nippongenetics.eu/fas-x

Subscribe to the NIPPON Genetics EUROPE Newsletter!

Don´t miss any news and stay informed about the latest product developments and current promotions.

Newsletter

www.nippongenetics.eu/en/newsletter-registration/

MIDORI[Green] Xtra

MIDORI[Green] Easy

MIDORI[Green] Direct

Our set of MIDORI[Green] dyes offers a perfect solution for different staining preparation or gel documentation conditions. MIDORI[Green] Xtra and MIDORI[Green] Easy are added to the melted agarose for gel staining. If direct addition of the dye to the samples is preferred, MIDORI[Green] Direct is the stain of choice. All dyes perform best with visible light, especially with our Blue/Green LED light technology. No matter which MIDORI[Green] dye you use for your applications, all give excellent DNA signals and are completely safe to use, as certified by external safety labs.

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