

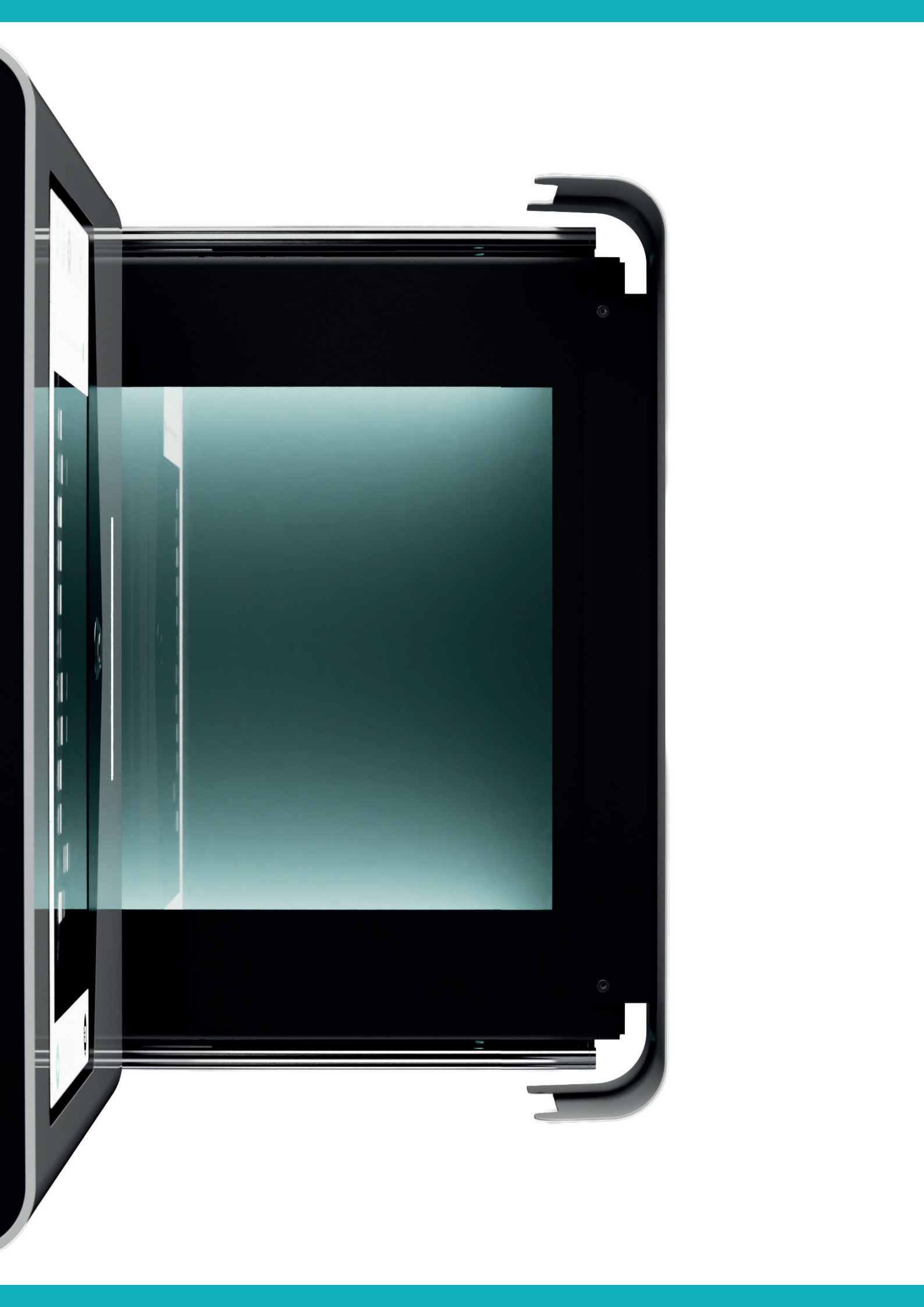


FastGene® FAS-X

GEL DOCUMENTATION SYSTEM

ADVANCED BLUE/GREEN LEDS FOR SAFER IMAGING

INTUITIVE ICON-BASED SOFTWARE FOR EFFORTLESS OPERATION





FAS-X: From vision to innovation

A letter from CEO, Juergen Luenzer

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 colour 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. Juergen Luenzer
CEO, NIPPON Genetics EUROPE



Revolutionary Blue/Green LED light



Safer light, stronger results

Blue/Green LED technology brings gel documentation into a safer, more versatile and high-performance era. Operating in the visible light range of 470–520 nm, it avoids the risks of UV exposure while delivering powerful excitation for a broad range of fluorescent dyes and proteins

Protect users, protect samples

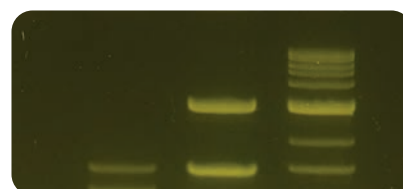
Unlike UV light, Blue/Green LEDs work within the visible spectrum, making everyday gel imaging safer for both the user and the sample. This reduces exposure risk during documentation and helps protect valuable DNA and RNA from light-induced damage

More excitation, better signal

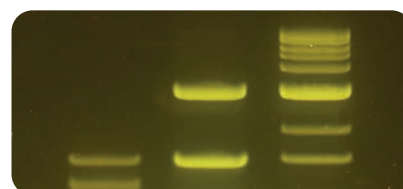
Standard blue LED systems usually emit at a single wavelength around 470 nm, which can limit excitation efficiency for many dyes. This often results in weaker signals, higher background and reduced image quality.

Blue/Green LED technology covers a broader excitation range, helping to generate brighter bands, sharper images and better compatibility with green, yellow and red fluorescent dyes, as well as fluorescent proteins.

MIDORI^{Green} Xtra dye illuminated with Blue LED



MIDORI^{Green} Xtra dye illuminated with 

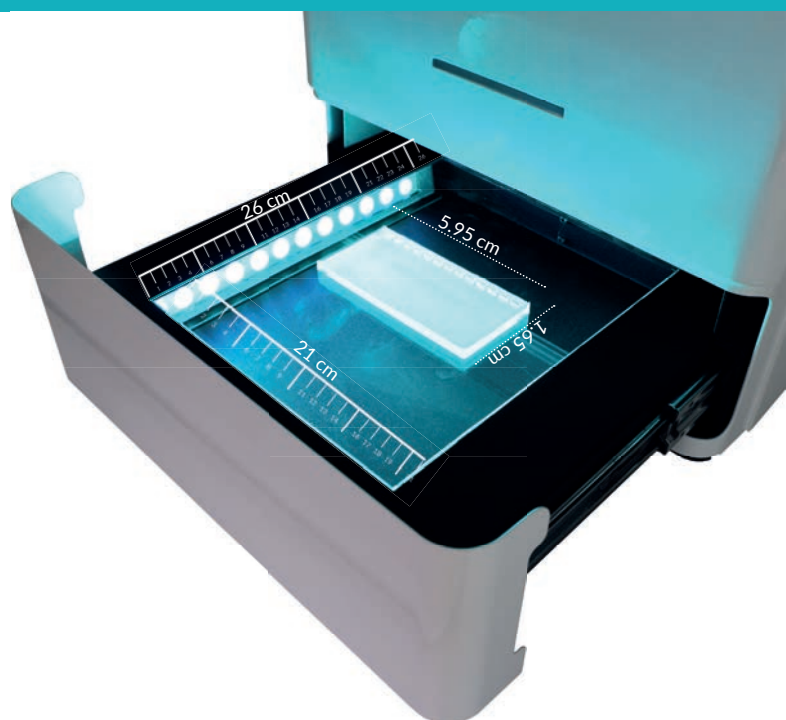




Capture more in one shot

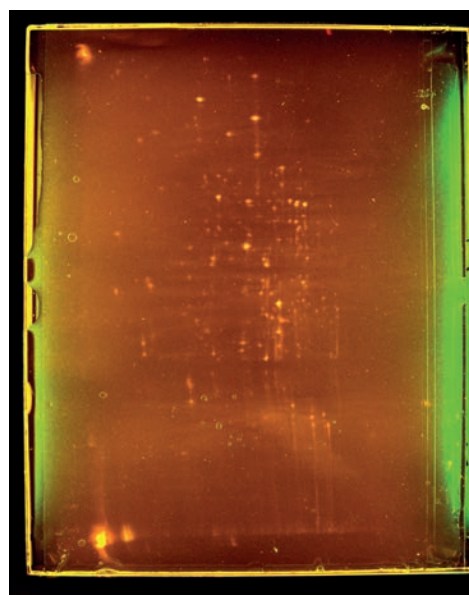
The FastGene® FAS-X features a large 26 cm × 21 cm illumination area, giving you the space to image multiple gels or large-format gels in a single session.

From standard agarose gels to oversized 2D gels, the FAS-X helps reduce repeated imaging steps and keeps your workflow efficient.



One system, multiple applications

With Blue/Green LED technology, there is no need to switch between multiple devices for different fluorescence applications. The FAS-X supports DNA/RNA dyes, protein dyes and fluorescent proteins, making imaging workflows easier, faster and more flexible.



Large 2D gels fit on the FAS-X Blue/Green LED Transilluminator

One light source, multiple fluorescent applications.

Green, yellow & red DNA/RNA Dyes

The Blue/Green LED transilluminator enables high-intensity detection of a wide range of fluorescent DNA and RNA stains. Green, yellow and red nucleic acid dyes can be efficiently excited, allowing safe, sensitive and reliable visualization of gels without the need for UV exposure.

GREEN DYES

MIDORI^{Green} dyes
SYBR[™] Safe
SYBR[™] Green I & II
SyGreen[®]
GelGreen[®]
GelStar[®]
GreenView[™]
HydraGreen[™]
RedSafe[™]

BGLED
BLUE GREEN
COMPATIBILITY

YELLOW DYES

SYBR Gold[™]
Diamond[™]

RED DYES

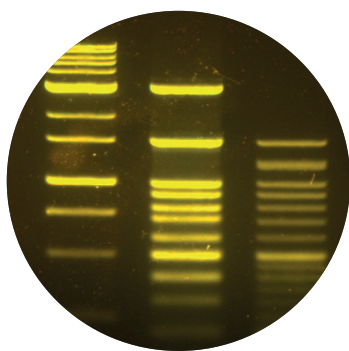
Ethidium Bromide
GelRed[™]
SafeRed[™]

Protein dyes and fluorescent proteins

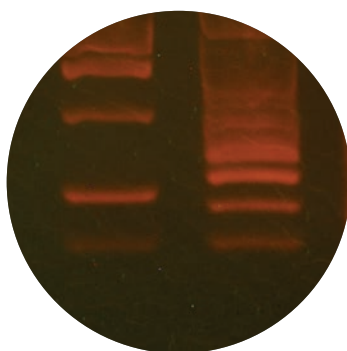
Beyond nucleic acid detection, the Blue/Green LED technology also supports the excitation of fluorescent protein dyes and commonly used fluorescent proteins such as GFP, YFP, RFP and mCherry. This makes the FAS-X system a versatile solution for fluorescence-based imaging across different molecular biology applications.



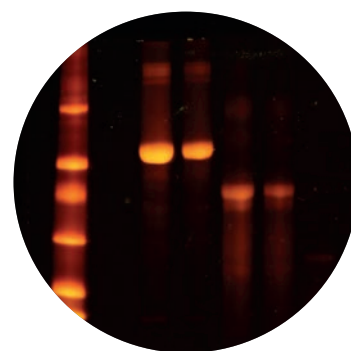
Fluorescent dyes



MIDORI^{Green} Xtra DNA dye



GelRed[®] DNA dye

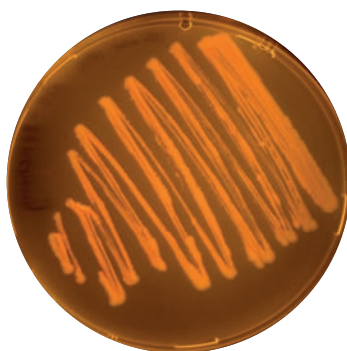


Fluorescent protein dye

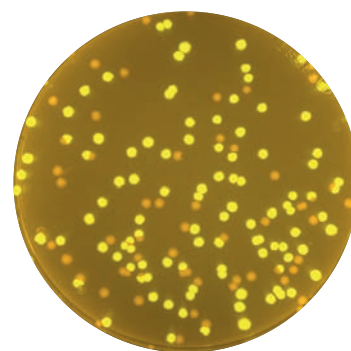
Fluorescent proteins



GFP



mCherry



YFP & RFP

Powerful white light imaging

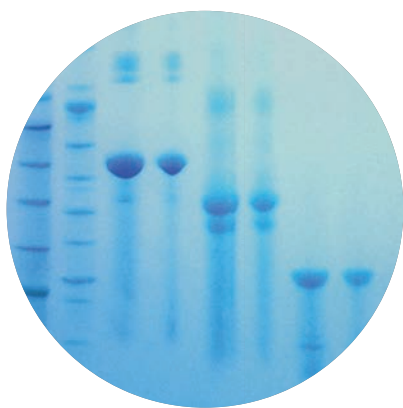
Beyond fluorescent gels

The FAS-X is not limited to fluorescence detection. Thanks to its integrated filter wheel, users can easily switch between Blue/Green LED excitation and epi-white LED illumination.

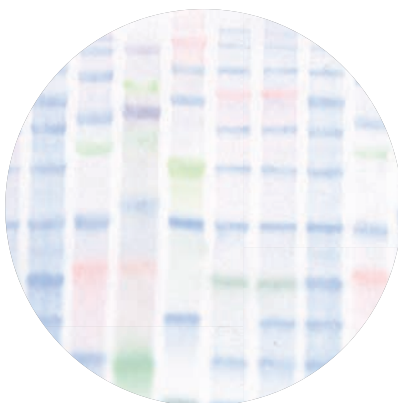
In combination with the included white light plate (FG-07CE), the epi-white LED mode enables clear, high-quality imaging of colourimetric PAGE protein gels.



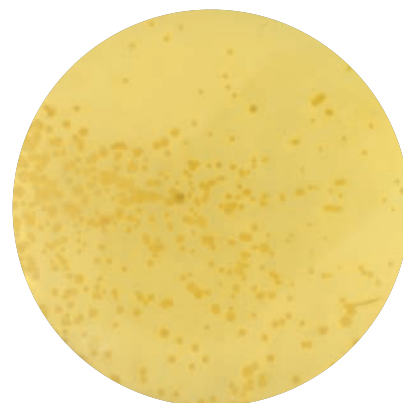
It also allows high-resolution documentation of colourimetric Western blot membranes and bacterial colony plates, expanding the FAS-X into a versatile imaging system for multiple laboratory applications.



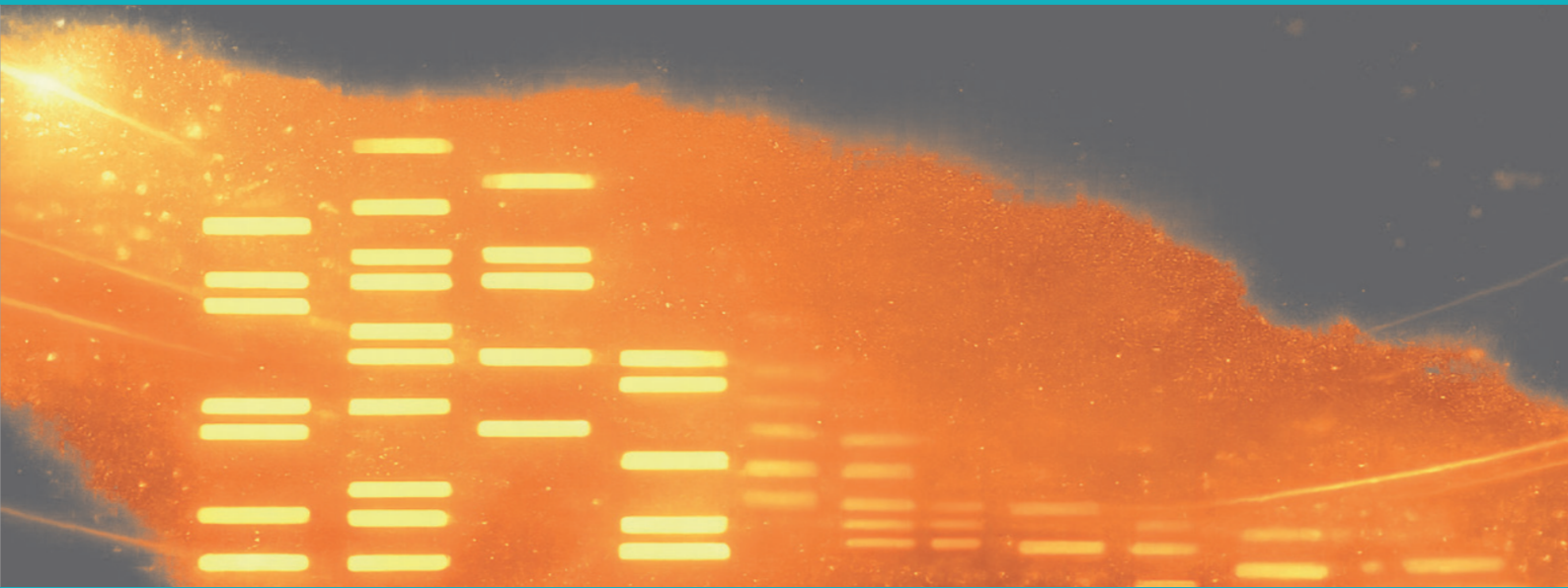
Coomassie-stained PAGE protein gel



Western blot membrane



Bacterial colony plate

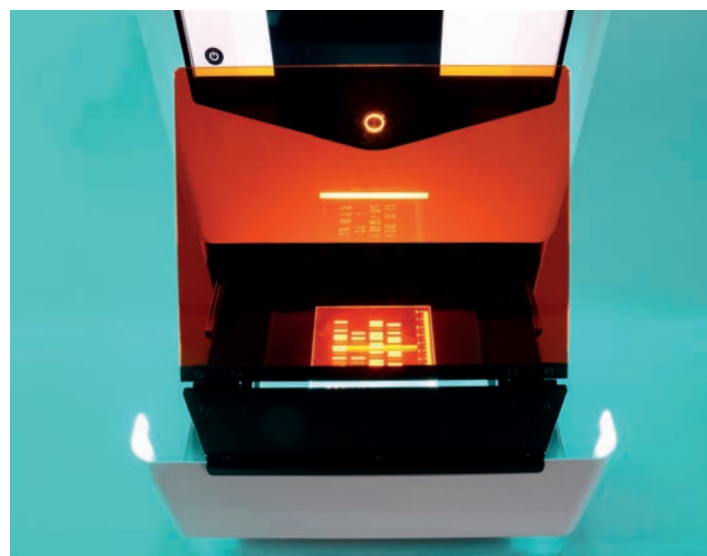


Accessory: Amber Board for gel band excision

More comfort when cutting gel bands

The optional Amber Board for FAS-X makes gel band excision simple and comfortable. Its magnetic attachment fits securely onto the FAS-X drawer in seconds. No tools, no setup, no complicated handling.

When the work is done, it can be removed just as easily and stored away conveniently.



More space for precise handling

Unlike conventional filter shields that can restrict movement, the Amber Board provides generous hand space for comfortable gel band excision. This makes cutting out bands easier, smoother and more controlled, even when working with delicate samples.

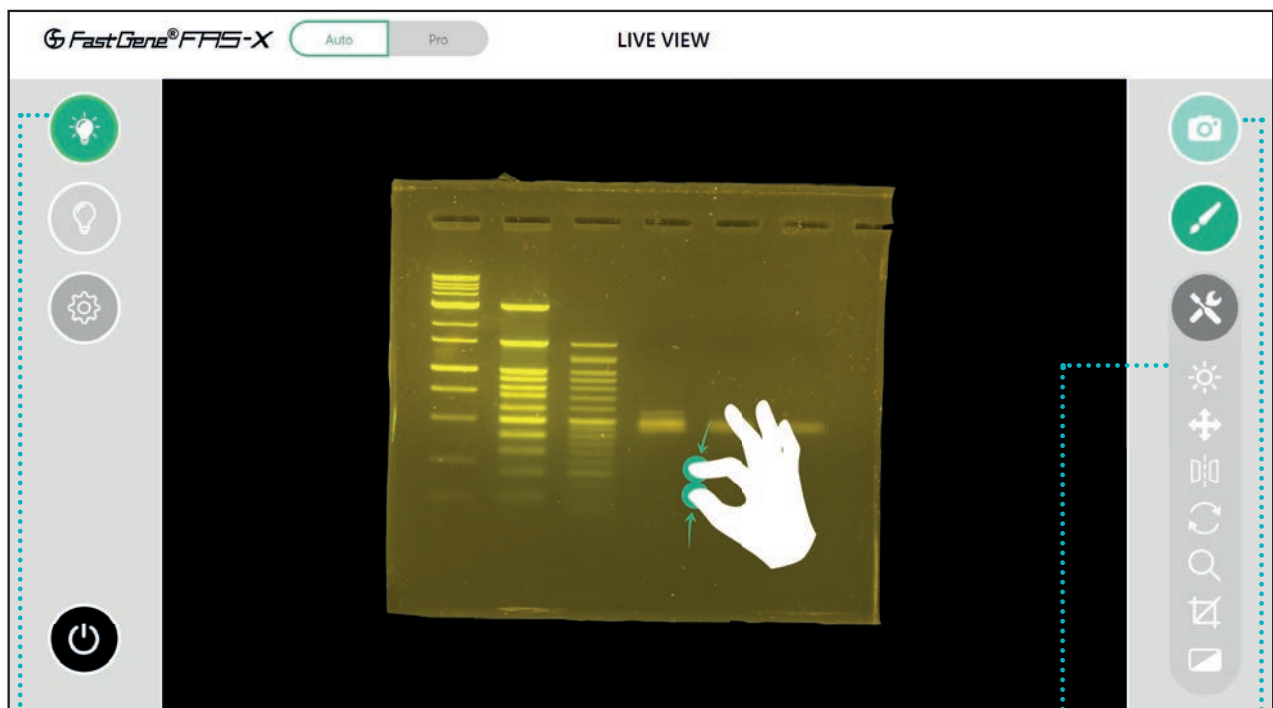


Smart software for perfect images

Your gel image in just 3 taps

With the FAS-X, capturing the perfect gel image is fast and intuitive. The user-friendly software guides you smoothly through the imaging process, with only 3 taps needed to get high-quality results.

Zoom in and out just like on a smartphone, adjust your view with ease, and analyze details more precisely on the large 13.3" high-resolution touchscreen.



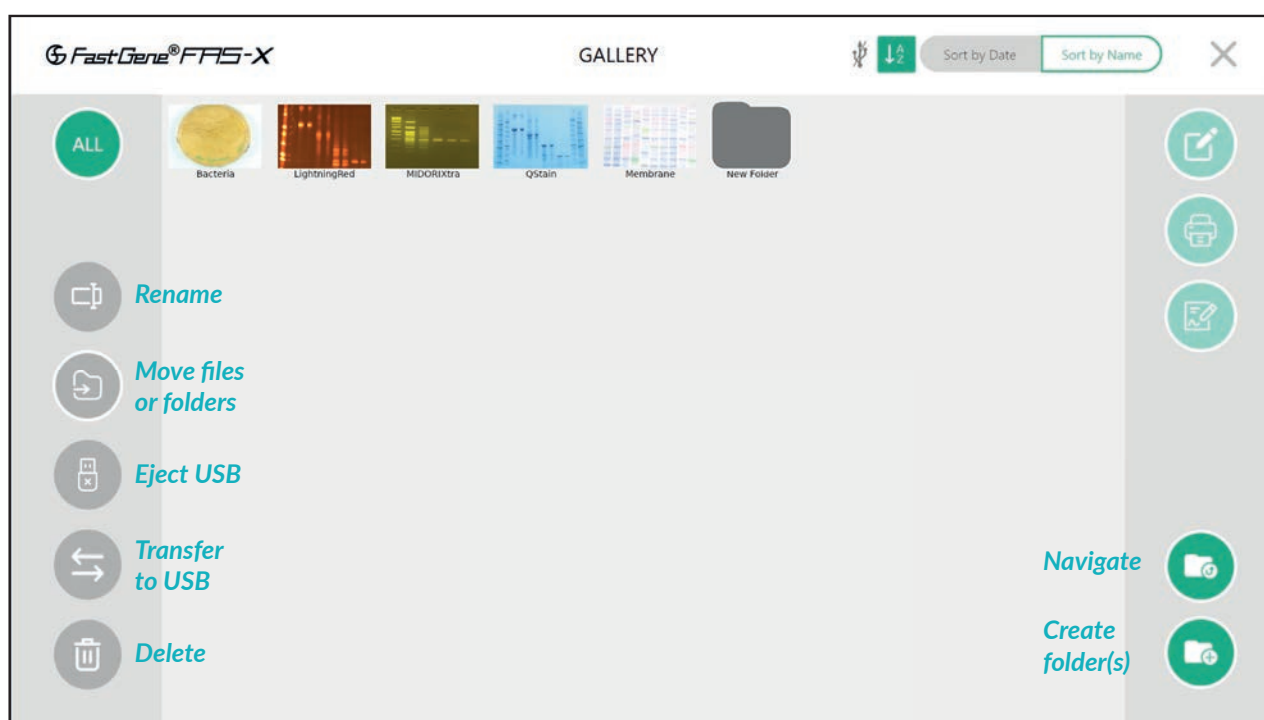
1. Turn on the
Blue/Green LED lamps

2. Adjust the
brightness

3. Capture
the image

Smart image management

All saved images are stored in the FAS-X gallery, keeping results structured, accessible and easy to find. Images can be sorted by date or name, renamed, and organized into folders for a faster, cleaner workflow.



Easy data transfer: Export and share

Selected images and folders can be copied directly to a USB flash drive from the gallery for quick export.

For even smoother access, FAS-X supports password-protected network sharing, allowing saved files to be opened from computers on the same local network: securely, efficiently and without extra steps.

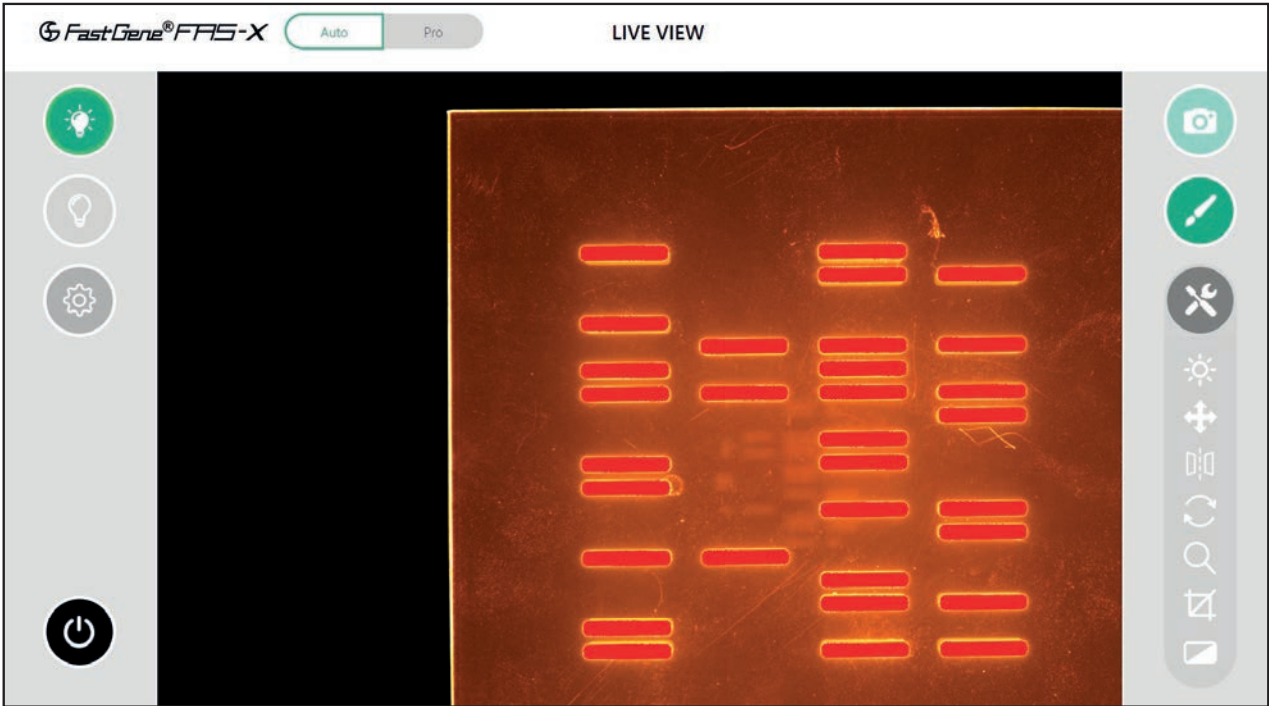


See saturated bands before you capture

The FAS-X overexposure detection highlights saturated areas directly in the live view, making it easy to identify signals that could compromise image quality or interpretation.

With an adjustable threshold, the sensitivity can be fine-tuned for different samples and signal intensities, helping you capture strong bands clearly without losing important detail.

 Overexposure Detection



Red highlights mark saturated bands in the live view, allowing exposure to be adjusted before capture.

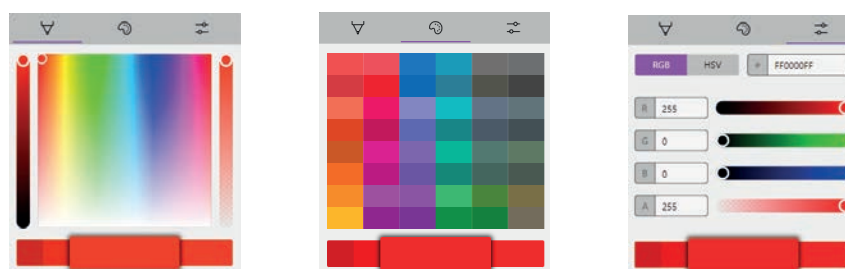


Built-in image annotation

Enhance your gel images directly in the FAS-X software with built-in annotation tools. Add text, boxes, lines and arrows to mark key bands, highlight important details and create clear, precise documentation in seconds.



Each annotation can be customized in the colour of your choice using a selected colour palette.





Technical specifications

Built for high-quality imaging

With a 20 MP camera, two integrated light sources, a Full HD touchscreen, intuitive software, 128 GB storage and LAN connectivity, the FastGene® FAS-X is built for high-quality imaging and efficient data management.

Camera

Camera sensor type	Scientific-grade CMOS
Image resolution	20 MP 5472 px x 3648 px
Image format	JPEG, TIFF, PNG, BMP
Exposure time	13 μ s to 10 s

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, glove compatible
Display resolution	1920 x 1080
Internal storage	128 GB
Connections	LAN, 3 x 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
Access	Loading drawer
Status LED	Front-mounted status LED

Accessories included

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

Additional accessories

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



Complete solutions from gel to image

Excellent gel documentation starts with the right workflow. NIPPON Genetics EUROPE supports you from start to finish with high-quality consumables and equipment for DNA electrophoresis.



Agarose

Cat. No.	Product	Content
AG01	FastGene® Agarose	100 g
AG02	FastGene® Agarose	500 g
AG05-100	FastGene® Agarose Tablets	100 Tablets (0.5 g Agarose per tablet)



Safe DNA dyes

Cat. No.	Product	Content
MG04	MIDORI ^{Green} Advance	1 mL (25,000 x)
MG10	MIDORI ^{Green} Xtra	1 mL (25,000 x)
MG12	MIDORI ^{Green} Easy	0.4 mL (10,000 x)
MG06	MIDORI ^{Green} Direct (with loading dye)	1 mL (10 x conc. for direct use in sample)

Flexible DNA staining

The MIDORI^{Green} dye range supports different staining workflows and light sources. Advance, Xtra and Easy are added to molten agarose, while Direct is used directly in the sample.

Advance is optimized for strong signals with UV, while Xtra, Easy and Direct perform best with visible light, especially Blue/Green LED technology. All MIDORI^{Green} dyes provide bright DNA signals and externally confirmed safe handling.

MIDORI^{Green} Advance



MIDORI^{Green} Xtra



MIDORI^{Green} Easy



MIDORI^{Green} Direct





Agarose tablets with safe DNA dyes

MIDORI^{Green} Agarose Tablets

MIDORI^{Green} Agarose Tablets make gel preparation quick and consistent. No weighing, no separate dye addition, simply add the tablet to cold water or buffer, heat and pour. Each tablet contains the ideal amount of agarose and MIDORI^{Green} Xtra or MIDORI^{Green} Advance for reliable results with less preparation effort.

Cat. No.	Product	Content
AG09	MIDORI ^{Green} Advance TBE Agarose Tablets	100 Tablets
AG10	MIDORI ^{Green} Advance TAE Agarose Tablets	100 Tablets
AG11	MIDORI ^{Green} Advance Agarose Tablets (without buffer)	100 Tablets
AG12	MIDORI ^{Green} Xtra Agarose Tablets (without buffer)	100 Tablets
AG13	MIDORI ^{Green} Xtra TAE Agarose Tablets	100 Tablets



DNA Markers

Cat. No.	Product	Content
MWD50	FastGene [®] 50 bp Standard DNA Marker	500 µL
MWD100	FastGene [®] 100 bp Standard DNA Marker	500 µL
MWD1P	FastGene [®] 1 kb Standard DNA Marker Plus	500 µL



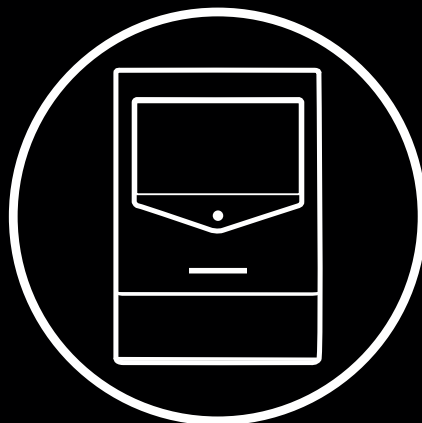
Buffers & tools

Cat. No.	Product	Content
ID1521	50x TAE Buffer	500 mL
ID1531	10x TBE Buffer	500 mL
ID1654	6x Nucleic Acid Loading Buffer	10 mL
FG-830	FastGene [®] Agarose Gel Band Cutter	50 units



Gel electrophoresis system

Cat. No.	Product	Content
MU2	Mupid [™] -One	Mupid [™] -One electrophoresis system (includes complete gel casting set)



FAS-X ordering information

Cat. No.	Product	Content
GP-FAS-X	FAS-X Gel Documentation System	• FAS-X • Power cable • Amber goggles (Cat. No.: GPG) • FastGene® Agarose Gel Band Cutter (Cat. No.: FG-830) • White light plate (Cat. No.: FG-07CE) • USB flash drive with manual

Optimize your gel documentation workflow

Contact us to discuss your application needs. We will be happy to provide product guidance, workflow advice and support in finding the right solution for your lab.

www.nippongenetics.eu/fas-x



NIPPON Genetics EUROPE - Innovation For You!

NIPPON Genetics EUROPE is a young, dynamic and forward-thinking company dedicated to providing high-quality laboratory products to researchers and scientists across the world. With two decades of experience, we are specialists in life science and biotechnology solutions and have become a trusted partner in the scientific community. Our mission is to deliver innovation and support to help scientists to achieve their goals and make a positive impact on the world.

