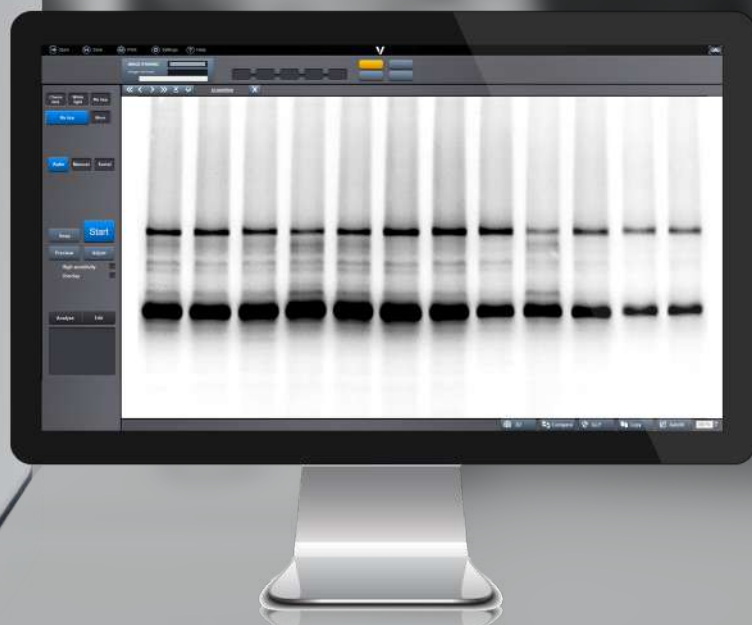


FUSION SOLO S

CHEMILUMINESCENCE &
OPTIONAL FLUORESCENCE IMAGING



WESTERN BLOT IMAGING

VILBER
MORE THAN IMAGES

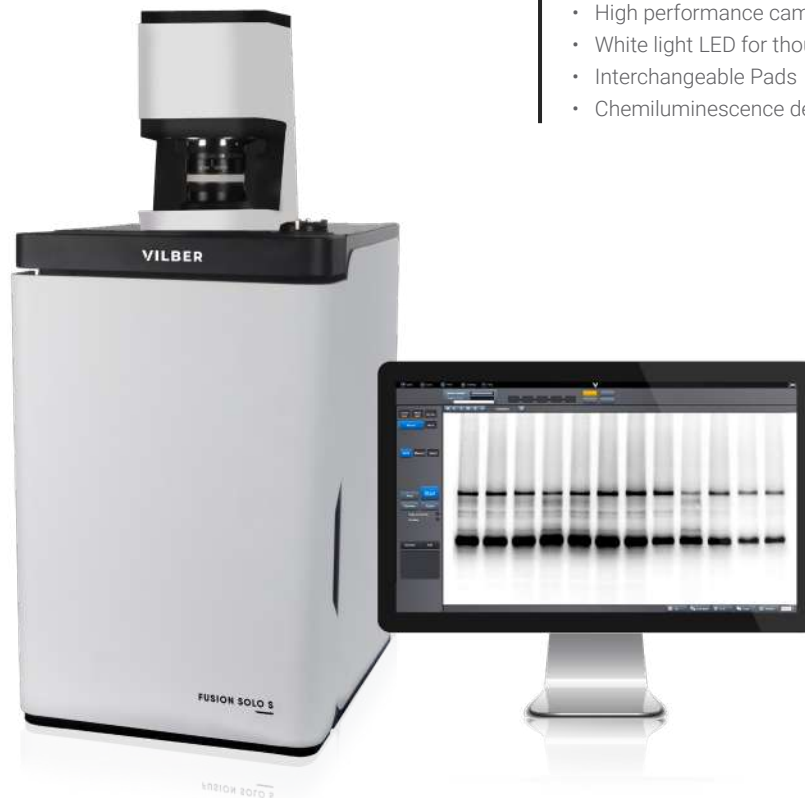
FUSION SOLO S

Upgradeable

- Dedicated chemiluminescence system with extendable fluorescence capabilities
- Optional epi or transilluminators for blot or gel
- Adaptable to Spectra Capsules for Epi UV, blue, green, red, NIR and IR fluorescence on blots

Long Lasting High Quality

- Steel and stainless steel darkroom for the best robustness
- High performance camera
- White light LED for thousands of hours of use
- Interchangeable Pads
- Chemiluminescence detection : femtogram level



Ideal For Quantification

- Reproducible and comparable quantification data
- ImageMaster™ technology to obtain the optimum image for quantification
- Scientific TIFF file or proprietary file format
- Clarity™ technology for precise band revelation without affecting data integrity

Unrivalled Performance

- Better sensitivity than a film
- Unique custom made f/0.70 lens performance for super-fast image acquisition
- Reproducible and comparable quantification data
- Best signal to noise ratio of the industry for the lowest limits of detection

FUSION Solo S Pad-Box Concept

The PadBox concept meets the need for accommodating several interchangeable tables into one device. The PadBox can easily integrate one of the several available Application Pads such as our UV, blue, white light or your own hardware such as heater, cooler, electrophoresis tank, special light source etc. Our Pads are automatically recognized by the system and the imaging and software options are adjusted accordingly.



ULTRA SENSITIVE IMAGING

The Fusion Solo S is a high-end ultra-sensitive scientific optical system, designed to extract the lowest level of detection from your protein. The Fusion systems' cameras use the latest generation of sensors and semi-conductors. Combined with our unique built-in High Sensitivity Reading (HSR) technology and our unrivalled f/0.70



The f/0.70 lens combines ultra-low dispersion aspheric elements to deliver unrivalled sensitivity and consistently sharp images. The 20mm minimum focusing distance is optimum for very faint light conditions.

lens, the Fusion is the most sensitive system and the best for publication, quantification and documentation grade imaging.

Fusion's High Sensitivity Reading technology delivers ultra-low noise and high sensitivity without altering the raw image data. Thanks to a camera modular design, a dual amplifier architecture and a complete control of the electronic components, the camera noise is reduced to a fraction. The HSR technology is a camera "on-head" built-in technology. During the light exposure, the non-necessary camera components are shut down. Once the exposure time is over, the camera components are automatically turned back. The shut-down process during the image exposition reduces

the camera noise, resulting in a better chip capacity to collect the signal.

Thanks to our HSR technology, the Fusion Solo S reduces the various sources of noise to the lowest floor level and the signal can stand out from the surrounding background. The figures 1 and 2 show a comparison of weak light signal images showing the sensitivity benefit of the Fusion HSR technology compared to competing systems. For Western blot imaging, the time to get the image is dramatically reduced and precious antibody can be saved.

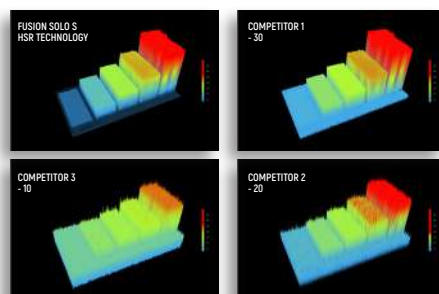


Figure1. Comparative low light images taken with Fusion versus competing systems with comparable imaging settings. The images are displayed with same relative intensity scaling.



Figure 2. The HSR technology provides a better sensitivity by reducing the noise ground level. By keeping the background to its lowest floor level, the very faint signal can easily be detected and quantified.

ONE CLICK TO THE IMAGE

The FUSION Solo S has been designed for maximum ease of use. From its simple installation to its intuitive user interface, this system is plug-and-play. The Solo S software is the easiest software to take an image. Place your blot on the tray, select your application, click on Start

and the system automatically captures your blot image, your marker image and combines the two together.

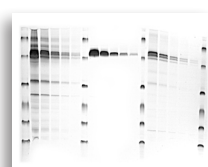
The FUSION Solo S includes our unique Apps Studio approach to imaging. The Apps Studio is a library which contains 40 different protocols for your blot, gel and other bioluminescence samples. The Studio gathers the excitation and the emission spectral curves of the main fluorophores and suggests the best possible system configuration.

The Apps Studio ensures reproducibility and one click acquisition for the best ease of use.

The modularity design of the FUSION Solo S makes the system fully upgradeable. You can simply start with a dedicated chemiluminescence system and upgrade your system as your number of applications grows. You could easily add UV or blue fluorescence for gels or EPI blue, green, NIR et IR excitation sources for fluorescence on blots. The built-in darkroom could accommodate several Pads.



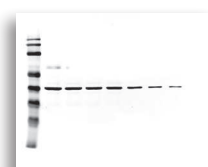
The Apps Studio contains more than 40 different imaging protocols for your Western, Northern or Southern blot.



Several blots detection at once.



Housekeeping/Protein of interest normalization.



Merged signal & marker images.

FUSION SOLO S

New Edge Generation



Super Sensitivity

Ultimate linearity for precise quantification.



Auto Exposure

Ultra-low noise imaging thanks to a dual camera amplifier.



Custom Made Super Sharp Lens

Fusion custom made lens for enhanced sensitivity & sharpness.



Adaptable Fluorescence Detection

Up to 7 excitation channels in the IR, NIR & visible RGB.



Apps Studio

A complete library of imaging applications to ensure reproducibility.



PadBox Concept

Interchangeable Pads for UV, blue and white fluorescence.

Optics

FUSION Solo 7S with the DarQ-9 camera – sensitivity oriented camera ideal for extremely low light sample

DarQ-9 camera:

- Unrivalled custom made manual lens f/0.70
- Scientific grade CCD camera
- Grade 0, zero defect
- Image resolution: 10 megapixels
- Native resolution: 2160x2160
- -90° C maximum cooling differential from ambient
- -65°C absolute and regulated cooling via a double cooling system & four stages Peltier thermoelectric cooler.
- High Sensitivity Reading (HSR) technology
- USB-3 connection

FUSION Solo 6S with the eVo-6 camera – resolution oriented camera ideal for publication

eVo-6 camera:

- Unrivalled custom made manual lens f/0.70
- Scientific grade CCD camera
- Grade 0, zero defect
- Image resolution: 20 megapixels
- Native resolution: 2838x2224
- -55° C maximum cooling differential from ambient
- -30°C absolute and regulated cooling via three stage Peltier thermoelectric cooler
- High Sensitivity Reading (HSR) technology
- USB-3 connection

Ease Of Use

- One-Click-to-the-Image™
- Auto-exposure
- Auto-lighting

Hardware

Smart Darkroom technology:

- Motorized 7 positions filter wheel
- Software control of the lighting
- Automatic recognition of the sample position
- Automatic visible lighting adjustment

Steel and stainless steel darkroom for long lasting robustness. Wide access door with UV safety shut-off
Built-in slide-out tray for interchangeable Pads

Software

Free software for image acquisition with full GLP compliance. Molecular weight calculation, band quantification, distance calculation, text editing and image enhancement included

CFR21 Part 11 ready

Applications

Chemiluminescence Western, Northern or Southern blot

Optional applications:

DNA and RNA gels and fluorescence stain imaging with UV Pad or Blue Pad

Colorimetric stained protein gels, X-Ray film, autorads, SSCP gels, colony dish and flask imaging with White-Light Pad or UV Pad + conversion screen

Fluorescence Western blot with Spectra Capsules

Innovations

- Apps Studio
- 3D Dynamic Scan
- SuperResolution
- High Sensitivity Reading (HSR) technology
- PadBox™
- ImageMaster™ assistant
- Clarity™

Options

Spectra Capsules Adapter: Upgradeable Spectra Capsules innovative concept for a customized choice of up to 8 powerful filtered light capsules :

**365nm UV - 440nm - 480nm - 530nm - 580nm
640nm - 680nm - 740nm - 780nm**

Covering a wide variety of application in the UV, Visible and the IR range.

- UV Pad, Super-Bright Pad, Sky-Light Pad
Blue Pad, White-Light Pad

- White light or blue light conversion screen

- Advanced Bio-1D quantification software
- CFR21 Part 11 Administration Software



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We are proud to be a leading life science company which designs and manufactures state of the art imaging systems for all your fluorescence, chemiluminescence and bioluminescence applications. Our commitment is to accelerate your research via a highly reliable and simplified imaging process.

We are constantly innovating to offer you the best performance in terms of optical sensitivity and analysis. Our technologies incorporate the latest developments in user interface and product design, as well as photonic innovations. Today, our engineering company has made its way into the imaging sector: over 60,000 users worldwide, including several Nobel Prize winners, rely on our imagers.