FUSION FX7
CHEMILUMINESCENCE & FLUORESCENCE IMAGING
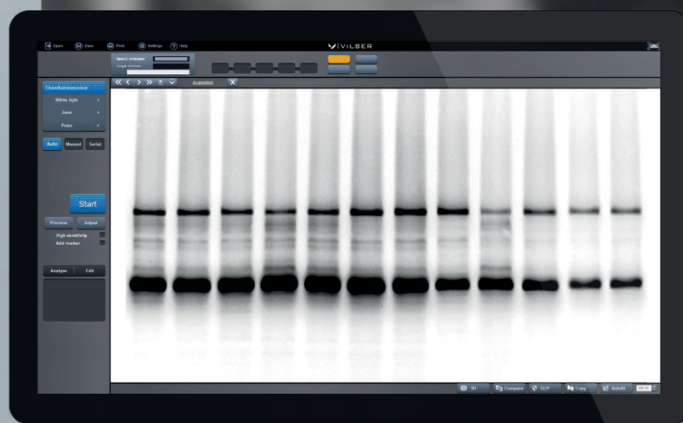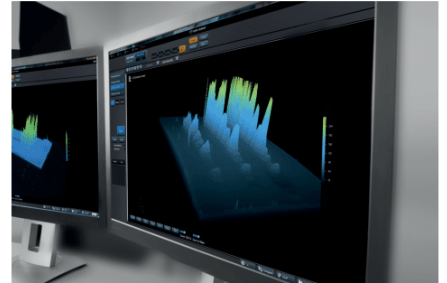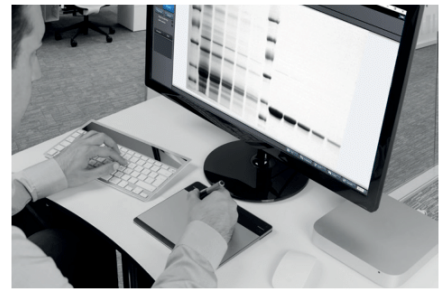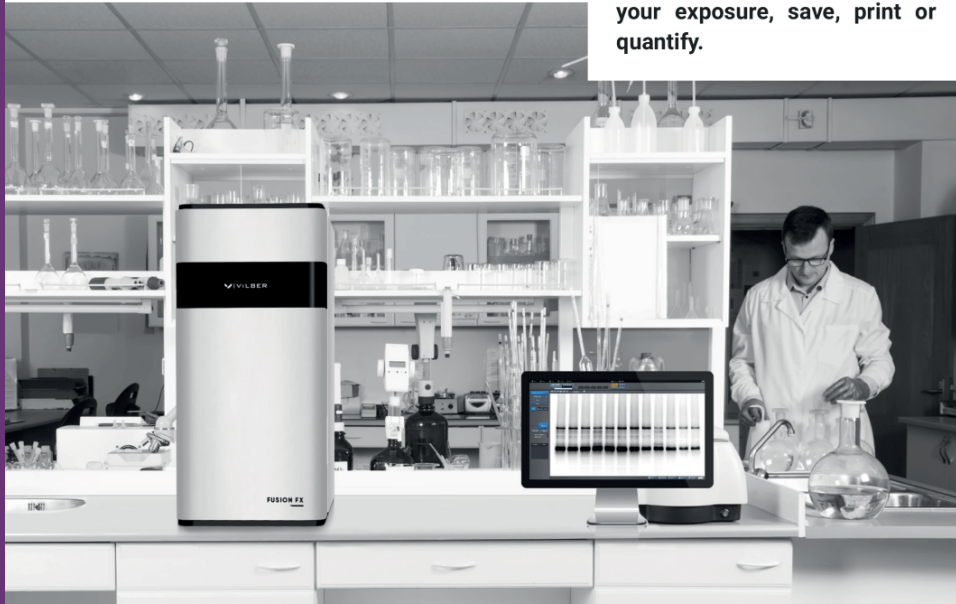
VILBER

FUSION FX SPECTRA

WESTERN BLOT & GEL DOCUMENTATION IMAGING

VILBER
Smart Imaging

The FUSION FX7's protocol driven image acquisition is as quick as it is intuitive: adjust your exposure, save, print or quantify.

The FUSION FX7 delivers more significant quantitative data compared to other imagers.

For chemiluminescence, the time to get the image is dramatically reduced and precious antibody can be saved.

For fluorescence, photobleaching and phototoxicity are reduced.

RELIABLEDATAFORQUANTIFICATION
PRECISE AND ACCURATE

The FUSION FX7 is ideal for quantification grade imaging. Chemiluminescent Western blot data poses distinct challenges in producing quantifiable, reproducible data. These problems stem from a low-dynamic range of detection and the difficulty in accurately determining the limit of detection. The FUSION FX7 eliminates all these issues thanks to its High Sensitivity Reading (HSR) camera technology which delivers reliable dynamic range, linearity and sensitivity for the lowest limit of detection. With the HSR, the FUSION FX7 reduces the various sources of noise to the lowest floor level and the signal can stand out from the surrounding background.

The FUSION FX7 provides consistent and reproducible data, independently of the chemiluminescence time course. The chemiluminescence intensity/time profile consists of an initial rise period up to a prolonged emission at a pseudo-plateau level and a decline. The FUSION FX7 Automatic imaging mode compensates the time course of the chemiluminescence reaction by adjusting the exposure time while maintaining the larger possible image dynamic.

CUSTOM MADE V.070 LENS
UNRIVALLED SENSITIVITY

The FUSION FX7 custom made V.070 lens combines sensitivity and optical performance for very faint light conditions. The optical system includes ultra-low

dispersion components to enhance the sensitivity, and aspheric elements to deliver consistently sharp images. The V.070 lens has a focusing distance of only 20cm for the best sensitivity, clarity and image quality.

The main function of a camera lens is to collect light. The lens aperture represents its capability to collect as much light as possible in a given period. Its sensitivity is usually expressed by a range of f-stops. The smaller the f-stop number, the larger the aperture. A lower f-number denotes a greater aperture opening, which allows more light to reach the CCD sensor. The aperture of the V.070 lens is f/0.70, providing faster imaging and better sensitivity compared to all other imagers.

DESIGN FOR SIMPLICITY
ONE CLICK TO THE IMAGE

The FUSION FX7 has been designed for maximum ease of use. From its simple installation to its intuitive user interface, this system is plug and-play. The FUSION FX7 software is the easiest software to take an image. Place your blot on the tray, select your application, click on Start and automatically the system auto-exposes your blot image, your marker image and combines the two together.

The FUSION FX7 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 protocol oriented Apps Studio ensures reproducibility and one click acquisition for the best ease of use.

Scintica

FUSION FX7

SUPERIOR QUANTITATIVE RESULTS
Ultimate linearity for precise protein quantification over the full dynamic range.

HIGH SENSITIVITY READING (HSR) TECHNOLOGY
Ultra-low noise imaging thanks to a dual camera amplifier architecture.

CUSTOM MADE LENS
FUSION FX7 custom made lens for enhanced sensitivity and sharpness.

SUPER SENSITIVITY
Time to get the image is drastically reduced and precious antibody can be saved.

## QUANTITATIVE WESTERN BLOTTING

Sensitivity is a key feature to detect a protein expressed at low levels. Broad linear dynamic range is necessary to compare weak and strong signals in the same image.

The FUSION FX7 has a limit of detection in the picogram level. The system achieves the best signal to noise ratio for the lowest limits of detection. The FUSION FX7 is extremely linear over its wide dynamics and can easily detect large intensity difference between bright and faint bands before reaching saturation. The broad linear dynamic range enables relative quantification of target proteins with confidence.

BROADEST LINEARITY
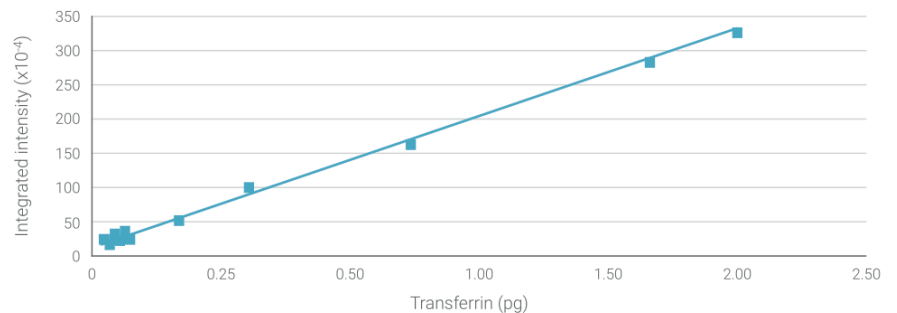
PICOGRAM LEVEL OF DETECTION & WIDE DYNAMIC RANGE

2.5ng   1.2pg

Scintica:
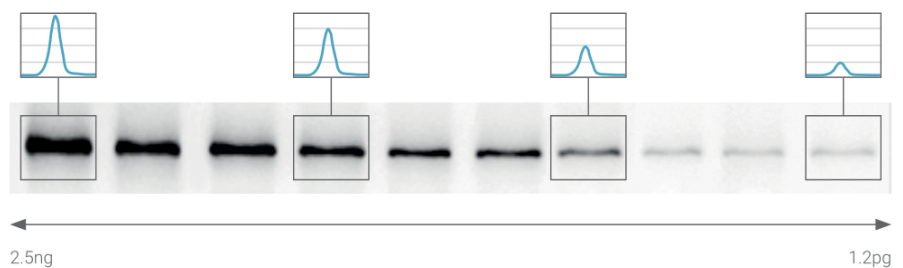
Smart Inside

- Auto-exposure and auto-focus
- Automatic light illumination control
- Protocol driven image acquisition
- Smart sensors to identify the sample distance
- Fully motorized lens and filter wheel

The Best Sensitivity

- Quoted in hundreds of publications
- Better sensitivity than a film
- One click to get the image
- Optional IR and visible fluorescence
- CFR21 Part 11 ready

VILBER

FUSION FX SPECTRA

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 razor sharp band revelation without affecting data integrity

Long Lasting High Quality

- Stainless steel, aluminium and steel darkroom for the best robustness
- Proven camera robustness
- White light LED for thousands of hours of use
- Interchangeable Pad

FUSION FX7 PadBox Concept

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

Scintica

HIGH END CAMERA & OPTICS

FUSION FX7 with the DarQ-9 camera – sensitivity oriented camera ideal for extremely low light sample

DarQ-9 camera:
- Unrivalled custom made 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

EASE OF USE

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

HARDWARE

Smart Darkroom technology:
- Motorised optical lens
- Motorised 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 Pad. Built-in Spectra Capsules Adapter

SOFTWARE

Free software for image acquisition with full GLP compliance. Molecular weight calculation, band quantification, colony counting, distance calculation, text annotation 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

TECHNOLOGY & INNOVATION

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

OPTIONS

Optional Spectra Capsules innovative concept for a customized choice of up to 7 powerful filtered optic light capsules:

365nm UV - 440nm - 480nm - 530nm
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 Sofware

VILBER
Smart Imaging

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