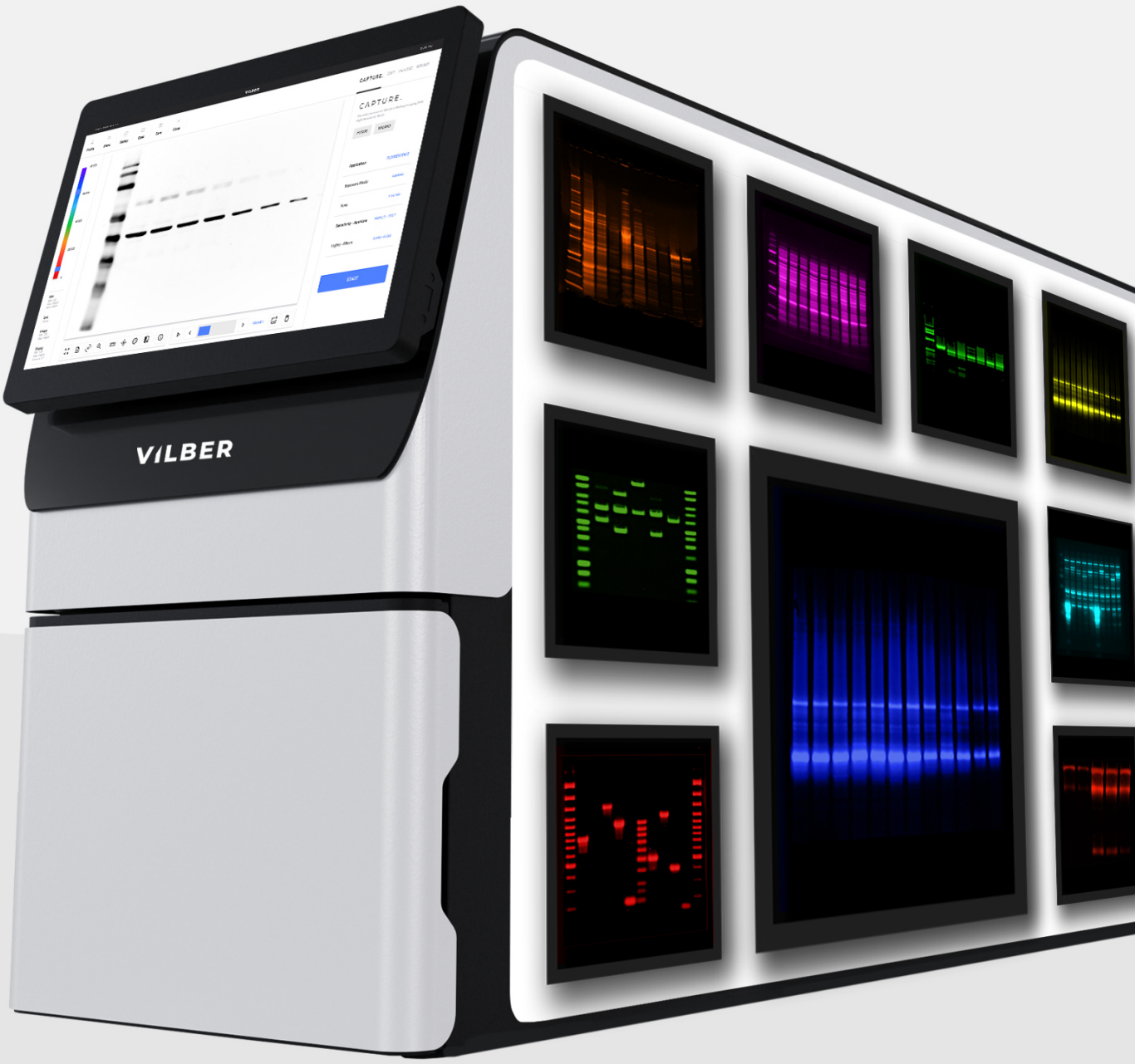
VILBER

MORE THAN IMAGES



FUSION ABSOLUTE

THE FIRST IMAGING SYSTEM WITH
ABSOLUTE PROTEIN QUANTIFICATION

ABSOLUTE DESIGN

"AN INSTINCT FOR TRUTH" - LOUIS PASTEUR

ABSOLUTE QUANTIFICATION

Absolute quantification allows researchers to compare and integrate data from different studies or laboratories. Unlike relative quantification, which compares the amount of an analyte between two or more samples, absolute quantification provides a precise value for sample quantities, expressed in absolute units (radiance in photons/s/cm2/sr).

ABSOLUTE CALIBRATION

Absolute NIST Traceable Calibration Imaging is based on traceable references provided by the National Institute of Standards and Technology (NIST). It allows precise quantification of specific biomolecules (such as proteins) in the sample of interest and provides benefits such as accuracy, reproducibility, and standardization.

ABSOLUTE TIME SAVER

Once your sample is placed in the machine, the system evaluates the required camera positioning distance. The Z-axis moves automatically according to the nature and size of the sample and suggests automatic settings. Designed to avoid time-consuming manipulation, our new system also features a wide-opening door so you can easily arrange your samples.

ABSOLUTE FLEXIBILITY

You are used to working on computer-based systems? The non-display version of the FUSION ABSOLUTE offers similar performance in a compact format. Depending on your needs and applications you can also customize your system. Finally, another innovative feature that comes with the FUSION ABSOLUTE is its new UV-LED Pad for your fluorescence experiments.

ABSOLUTE QUALITY

The FUSION ABSOLUTE is a powerful and robust all in one standalone system made of aluminium and stainless steel. Its design has been optimized by our R&D team to offer you the widest touchscreen in the market while perfectly fitting in your lab. Adjust screen orientation and view vibrant images in high resolution.

ABSOLUTE PERFORMANCE

FOR UNRIVALLED DETECTION

Designed to exceed your expectations, the FUSION ABSOLUTE is the first ultra-precise photon counting instrument enabling you to achieve absolute quantification. Its automated analysis capabilities allow you to detect, decode and quantify your protein of interest with certainty. This high-end system dedicated to all your chemiluminescence and fluorescence applications combines unrivalled optical sensitivity and optimum visualisation of your results to offer you the greatest level of performance. With its wide choice of customizable light sources, it's a one-of-a-kind molecular imager opening the way to infinite multispectral imaging possibilities. Discover a world of extreme precision and technical innovations where your experiments know no limits.

BREAK THE BOUNDARIES OF PROTEIN DETECTION

FUSION ABSOLUTE custom made f/0.70 lens combines sensitivity and optical performance for very faint light conditions (picogram level). The system achieves the best signal to noise ratio and can easily detect large intensity difference between bright and faint bands before reaching saturation. The broad linear dynamic range enables quantification of target proteins with absolute confidence.

CHOOSE THE BEST OPTICS

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 f/0.70 aperture of our lens is providing faster imaging and better sensitivity compared to all other imagers in the market. Our system is also equipped with a deeply cooled CCD scientific camera which allows you to get rid of background noise.

DISCOVER THE POWER OF MULTISPECTRAL IMAGING

Multispectral imaging in molecular imaging involves capturing images at multiple wavelengths to extract comprehensive information from a sample. It enhances the accuracy, versatility, and efficiency of the imaging process, making it a valuable tool for your research.

OBTAIN IMMEDIATE RESULTS

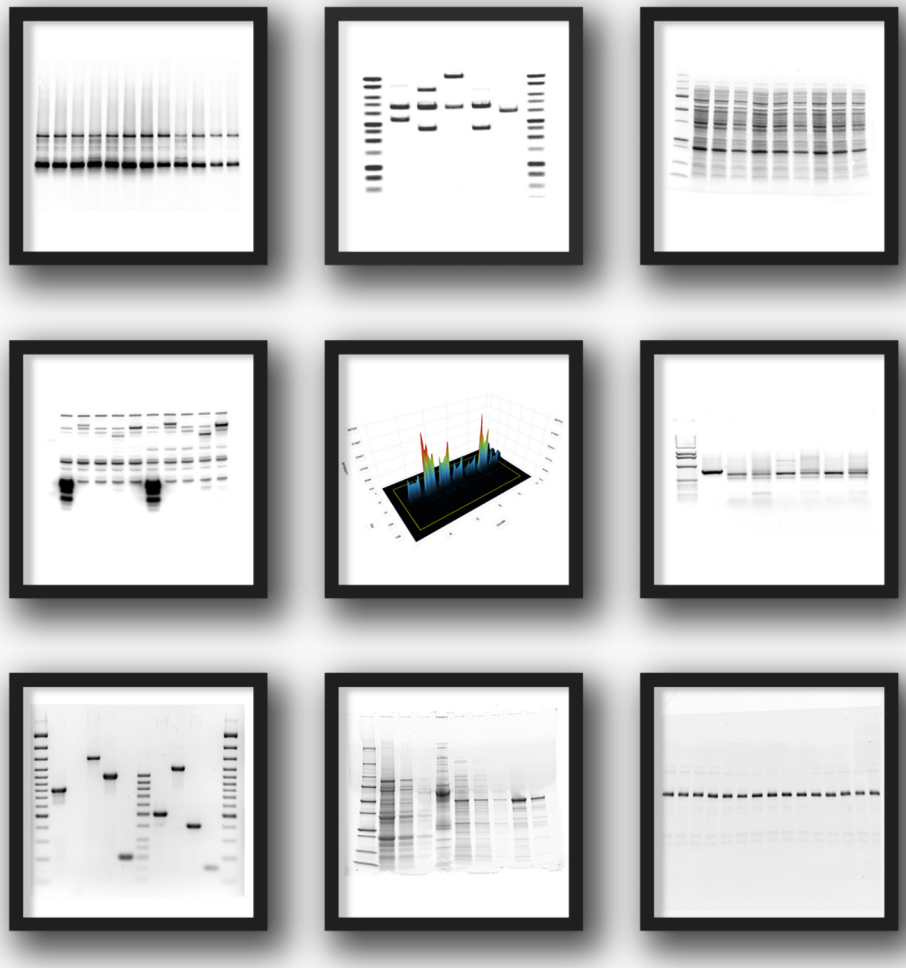
As we push the boundaries of detection, we significantly reduce acquisition time so that you can work faster and eventually save precious antibodies for chemiluminescence. For fluorescence, ultra-sensitive detection capability facilitates the use of shorter excitation exposure. The FUSION ABSOLUTE protocol driven image acquisition is as quick as it is intuitive: adjust your exposure, save, print and quantify.

MULTIPLEXING

Multiplexing makes it possible to detect several different proteins in a single sample. This technique will save you time and money, while giving you a complete analysis of the target protein.

REAGENTS & FLUOROPHORES

Fluorophores: Alexa 488 - Cy 2 - Alexa 532 - Alexa 555 - Alexa 680 - Alexa 700 - Alexa 750 - Cy 7- Alexa 790.
Intercalating agent: Ethidium Bromide, SYBR Safe, Midori Green, Gel red, SYBR Green



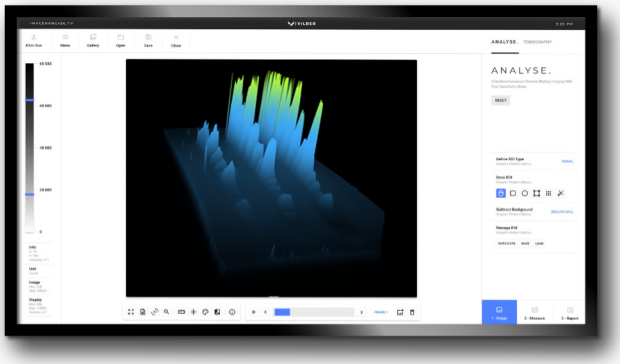
ALL YOU NEED IN ONE SYSTEM

Genomics: DNA analysis (mutation, methylation etc...), RNA (gene expression...) | Proteomics: Analysis of proteins molecular weight (analysis of mutation, expression, etc.) | Western blot: Biomedical research, molecular biology research, cancer research etc.

ABSOLUTE ANALYSIS

FOR VALUABLE INFORMATION

Enjoy faster and deeper analysis. Our system detects the weakest signals and decodes your images by turning data into information while maintaining its integrity. The calculations are already done for you. The visualization of your results combines the calculations made by the system and the image taken so that you can easily communicate your results. With its multispectral imaging and spectral unmixing technologies, KUANT Spectral unmixing makes your life easier and solves your crosstalk and autofluorescence issues. Get more accurate detection and measurement in your multi-labeled samples thanks to our powerful N.M.F. (non-negative matrix factorization) algorithm.



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MORE THAN IMAGES

CAMERA & OPTICS

- Unrivalled custom made lens f/0.70
- Scientific grade 16-bit CCD camera
- Grade 0, zero defect
- Image resolution: 10 megapixels
- Native resolution: 2160x2160 | **FX7**
- Native resolution: 2838×2224 | **FX6**
- -90° C maximum cooling differential from ambient & -65°C absolute and regulated cooling via a double cooling system & four stages Peltier | **FX7**
- -55° C maximum cooling differential from ambient & -30°C absolute and regulated cooling via three stages Peltier thermoelectric cooler | **FX6**

SOFTWARE

License free software for image acquisition with full GLP compliance

- Molecular weight and distance calculation
- Absolute quantification - Colony counting
- 3D Dynamic Scan - CFR21 Part 11 ready

HARDWARE CAPABILITIES

- Intelligent darkroom concept
- Motorized optical lens
- Z-axis motorized camera (automatic zooming and recognition of the sample position)
- Choice of 9 Absolute Spectra Capsules (excitation light sources) from 365 to 780nm
- Motorized 9 positions filter wheel
- Software control of the lighting
- Automatic visible lighting adjustment

APPLICATIONS

Chemiluminescence Western, Northern or Southern blot

- DNA & RNA gels and fluorescence stain imaging with UV-Pad, Blue-Pad & Green Pad
- Colorimetric stained protein gels, X-Ray film, autorads, SSCP gels, colony dish and flask imaging with Sky-Light-Pad or UV-Pad + conversion screen
- Fluorescence Western blot

CONTACT US FOR A DEMO

INFO@VILBER.COM

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.

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2023 - VILBER's FUSION ABSOLUTE imager may be used in a wide range of imaging applications for research use only, including in chemiluminescence and fluorescence imaging. No license under any third-party patent is conveyed with the purchase or transfer of this product. No right under any other patent claim, no right to perform any patented method, and no right to perform commercial services of any kind, including without limitation, reporting the results of purchaser's activities for a fee or other commercial consideration, is conveyed expressly, by implication, or by estoppel. Therefore, users of the FUSION ABSOLUTE should seek legal advice to determine whether they require a license under one or more of the exiting patents in their country. This system is not intended for sale or transfer in the United States and Canada.