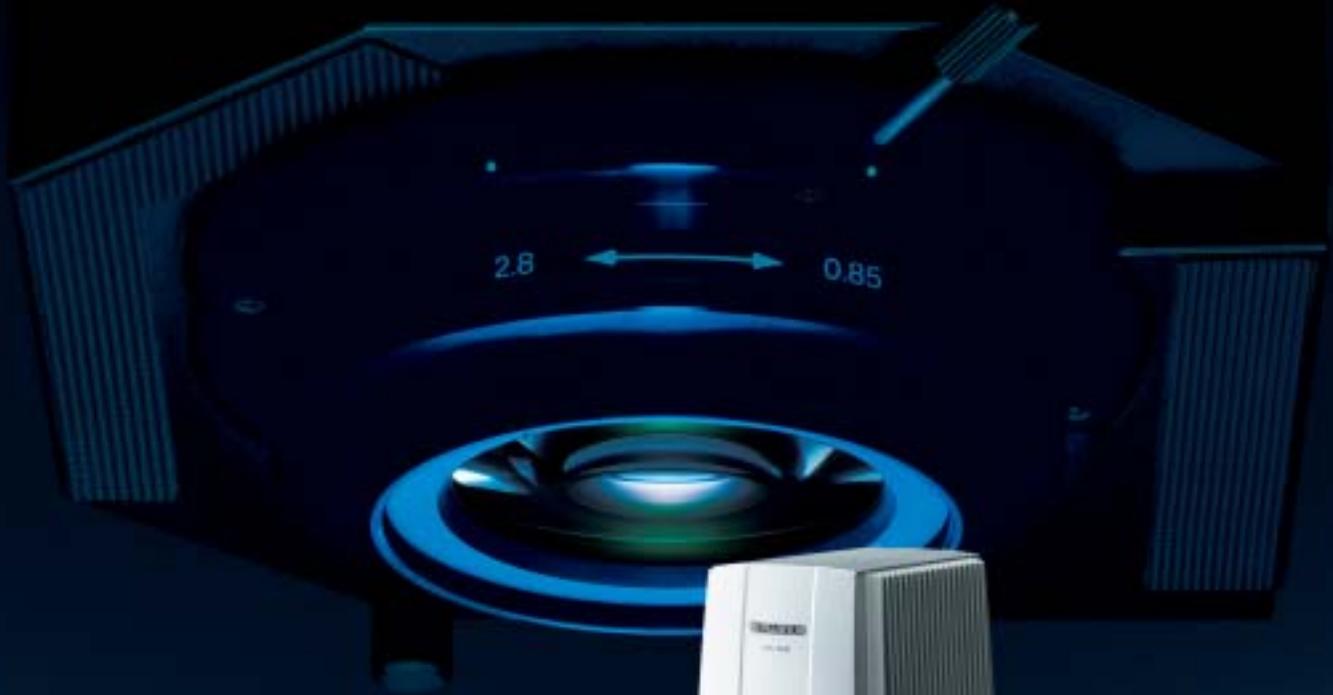


LUMINESCENT IMAGE ANALYZER

# LAS-3000mini



**FUJINON LENS**  
**SUPER CCD**  
**COMPACT BODY**



# Compact, but packed with Proprietary

*Equipped with a high-quality, cooled CCD camera and a compact image-analysis system*

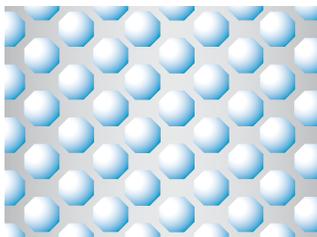
A digital system dispensing with dark rooms, films, and chemicals  
High-quality images resulting from high sensitivity and smoothing function  
Reduced exposure time due to multiple binning modes  
Easy operation improved by Image Reader software

## Super CCD chip affords up to 6.3 million pixels

By rotating pixels 45 degrees to form an interwoven layout, the Super CCD's pixel pitch in the horizontal and vertical directions is narrower than in the diagonal direction, achieving higher horizontal and vertical resolution.



Super CCD chip



Octagonal pixel-interwoven layout

## Equipped with a newly designed large-aperture F0.85 lens

The analyzer incorporates a FUJINON, a strikingly bright lens with an F-number of 0.85. This lens has been especially designed to make full use of the advantages of Fujifilm's proprietary Super CCD chip, and is excellent for capturing images from distances as short as several tens of centimeters. In its design, optical expertise developed through professional applications such as broadcasting TV cameras is fully exploited.



FUJINON LENS VRF43LMDIF0.85

## High-grade performance in a compact body

The same grade of camera and lens as in LAS-3000, the highest-grade model of the LAS series, are used. By limiting the applications to the specific areas of chemiluminescence and bioluminescence, a compact body is made possible while still retaining the high resolution and high performance of LAS-3000. Free from the necessity for dark rooms and chemicals, the analyzer can be placed on the top or side of an ordinary desk, and requires no special expertise for operation.



## Image capture software (supplied standard); LAS-3000mini Image Reader

LAS-3000mini Image Reader running on a PC can be used to specify image capture parameters. You can specify image capture parameters, such as the exposure method, exposure time, sensitivity, resolution, etc., according to instructions given on the screen. You can specify the settings of the detection method and diaphragm in accordance with the recommendations on the screen of Method / Tray position. Manual setting is not needed for any of the image corrections required for quantitative analysis, which is carried out automatically.



Screen of Method/Tray position



Screen of Exposure Increment

# Expertise in Bioscience

***Dedicated to luminescence applications,  
and particularly suitable for Western blotting applications***

A compact image analysis system dedicated to chemiluminescence/bioluminescence applications,  
the perfect standard system for Western blotting applications.

## Applicable reagents

**Chemiluminescence:** CDP-Star<sup>®</sup> , ECL Plus<sup>™</sup> , ECL<sup>™</sup> , SuperSignal<sup>®</sup> , ImmunoStar, CSPD<sup>®</sup> , etc.  
**Bioluminescence** : Luciferase, etc.

## Sample images

Sample images from various blotting and titer plate applications are captured.

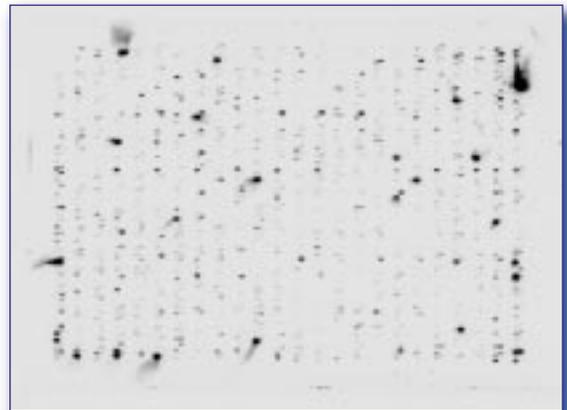


**Calcium-binding protein expressed in the rat small intestine, detected by Western blotting**

Substrate : CSPD<sup>®</sup>

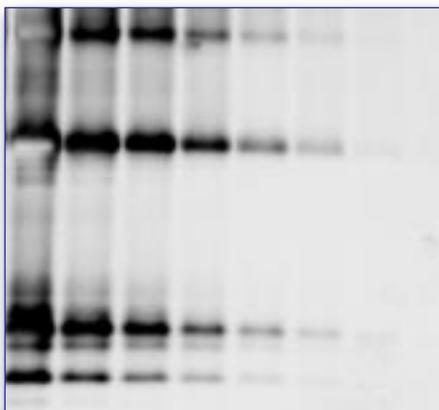
Exposure Time : 10min

Data courtesy of Laboratory of Molecular Nutrition Laboratory,  
Kagawa Nutrition University



**Atlas<sup>™</sup> Plastic Mouse 5K Microarray SpotLight<sup>™</sup>  
Chemiluminescent Hybridization & Detection kit**

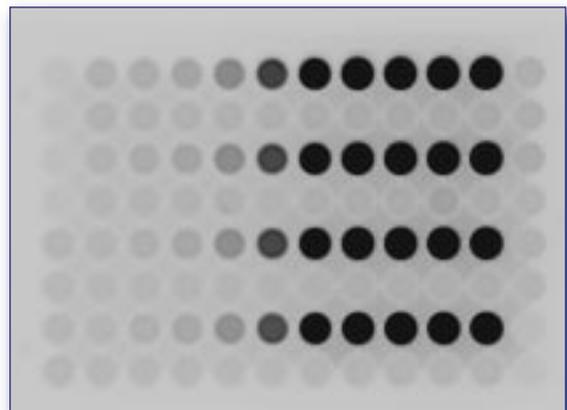
Exposure Time : 10min



**Mouse IgG detected by Western blotting**

Substrate : ECL<sup>™</sup> Advance

Exposure Time : 4sec



**Human IgG on a titer plate, detected by ELISA**

Substrate : ECL<sup>™</sup>

Note: A non-parallax tray (optional product) was used.

## Optional Products

### LAS-3000mini UV-Bay set

Combination usage of a UV-Bay set and any additional UV transilluminator enables the LAS-3000mini to capture UV transilluminated images.

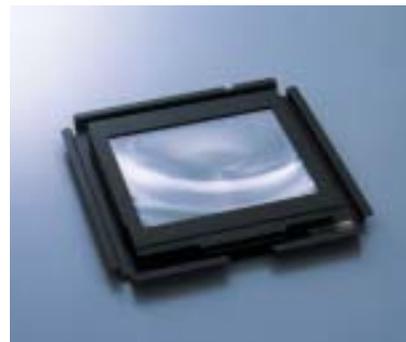
#### Includes;

- housing box
  - 605DF40 optical filter for EtBr detection
- \* Requires additional UV transilluminator.



### Non-parallax (NP) tray

A non-parallax (NP) tray is used to eliminate the parallax effect when imaging chemiluminescence in the 96-well plate. Up to two plates can be placed.



## LAS-3000mini Basic Specifications

### Specifications and Configuration

#### Image Capturing Unit( Requires additional Analyzing Unit )

##### Camera head and Controller

CCD chip	: Fujifilm Super CCD Area Type chip
Number of pixels	: 3.2 million pixels
Pixel size	: Approx. 11 μm
Cooling	: Two-stage thermoelectric module with air circulation
Cooling temperature	: Down to -30°C (When room temperature is below 28 °C)
Dynamic range	: Four orders of magnitude
Focusing and diaphragm	: Manual
Gradation	: 16 bits
Exposure mode	: Automatic / manual (normal / incremental / repetitive)
Exposure time	: Automatic / manual (1 / 100 seconds to 30 hours)
Pixel correction	: Dark-frame correction, flat-frame correction, distortion correction, etc.

##### Image quality correction

Image quality correction	: Binning and smoothing
Image size	: Up to 12 MB (formats : FUJI and TIFF)
Read pixel size	: Down to 35 μm
Maximum sample size	: 18 × 12 cm

##### Interface

Interface	: USB 1.1
Intelligent Dark Box VI	
Dedicated tray	: For chemiluminescence
Lens	: High-sensitivity lens : FUJINON VRF43LMDII F0.85

#### Applicable reagents

Chemiluminescence	: CDP-Star®, ECL Plus™, ECL™, SuperSignal®, ImmunoStar, CSPD®, etc.
Bioluminescence	: Luciferase

#### Operating conditions

Line frequency	50 / 60 Hz
Guaranteed operating conditions	
Temperature	: 15 - 28°C,
Humidity	: 30 - 70% (no condensation)
Power Consumption	: Approx. 0.2 kVA

#### Main body dimensions and mass

Dimensions	
Camera head and dark box	: 380 (W) × 660 (H) × 370 (D) mm
Controller	: 80 (W) × 386 (H) × 335 (D) mm
Weight	
Camera head and dark box	: Approx. 20.2 kg
Controller	: Approx. 5 kg

#### Optional Products

- Non-parallax tray
- UV-DIA tray

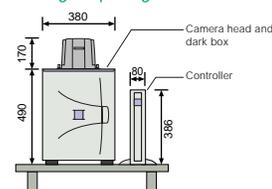
#### Remarks

Gel documentation is available

#### Analyzing Unit( separate product )

Computer	
OS	: Windows® XP / Mac™ OS X
Analysis software	ScienceLab

#### < Image capturing unit >



Desk is not included. unit (mm)

#### < Analyzing unit >



Windows® XP or Mac™ OS X

No license is granted for fluorescent dye pre-labeled gel electrophoresis with UV transilluminator.  
No license is granted for use of AttoPhos™ to detect nucleic acid on a nylon membrane.



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