VWR® Gel documentation & western blot imaging

Choose from the cost effective VWR® Basic system to the most advanced VWR® Imager CHEMI Premium for fluorescence and chemiluminescent imaging. The range includes models adapted to many different applications so you can choose the best solution for your work.

View the potential configurations below.

	VWR Basic	SMART5	CHEMI only	Imager2	Imager CHEMI Premium
UV light transillumination	√	√		√	√
Blue light transillumination	√	√		√	√
R/G/B and IR epi illumination					√
UV light epi illumination				√	√
White light epi illumination		√	√	√	√
Converters (UV to white or blue light)	√	√		√	√
Colorimetric gels (e.g. Coomassie, silver stains)	√	√		√	√
Colony plates	√	√		√	√
Slot blots			√		√
Chemiluminescence			√		√
Bioluminescence			√		√
Stain-free					√

Using the VWR Basic gel documentation system you can produce images of gels stained with many fluorescent and colorimetric dyes, including:

- Coomassie Blue
- Silver stain
- Ethidium bromide
- GelRed™
- GelGreen™
- EZ-VISION
- SYBR® Gold/Green/Safe
- SYPRO® Red/Ruby
- Fluorescein

As new dyes are released, we work to optimise their use with the Basic system. Contact our technical support team if you need information on imaging dyes.

VWR® BASIC

COST EFFECTIVE, QUALITY IMAGING

This entry level system can be used with UV, blue or visible light transilluminators. These flexible lighting options make the VWR® Basic system suitable for imaging a wide range of samples.

- High resolution digital camera for high quality images with precise band separation
- Full PC interface enables control of camera with real time imaging
- Programmable capture settings

VWR® Basic	Technical specifications
Camera	
Resolution	18 MP
Sensor/image depth	24 bit (colour)
Lens	Manual zoom, 3x optical
Power	Rechargeable battery (supplied)
Data type	JPG
Interface	USB 2.0
Image storage	Mass storage
Viewing area	20x20 cm
Illumination	
Compatible with VWR stand-alone UV, blue or white light transilluminators with max. 20x20 cm filter size	Sold separately See page 7
Darkroom	
Hood	Sits directly on transilluminator
Stand-alone and PC-operated (optional)	PC sold separately
Image viewing area	20x20 cm
Filter(s)	
UV/blue filter	Included
Software	
VWR® Image Capture Software	Included
VWR® Gel Documentation Software (for analysis)	Included (1 license)
Dimensions	
HxDxW	37x21x28 cm

Description	Includes	Cat. No.
VWR® Basic	18 MP camera, hood, UV filter, 1 copy of the VWR Gel Documentation Software.Transilluminator and converter not included	730-1470

VWR® SMART5 gel documentation system can produce images of gels stained with a wide range of fluorescent and colorimetric dyes, including:

- Coomassie Blue
- Silver stain
- Ethidium bromide
- GelRed™
- GelGreen™
- EZ-Vision®
- peqGREEN
- SYBR® Gold/Green/Safe
- SYPRO® Red/Ruby
- Fluorescein
- Pro-Q® Diamond
- Deep PurpleTM

As new dyes are released, we work to optimise their use with the VWR Gel Documentation systems. Contact our technical support team if you need information on imaging dyes.

VWR® SMART5

QUICK AND EASY STAND ALONE SYSTEM

VWR® SMART5 is a new generation, low cost, integrated imaging system for DNA and protein analysis and gel documentation.

- Compact workstation
- Complete with built-in processor, touch screen and SMART5 software
- Motor driven zoom lens
- 5 MP pixel camera
- White, UV and blue lighting options
- Complete networking connectivity (optional)

SMART5 is the ultimate in compact gel documentation workstations. Using a choice of UV, blue or white lighting options you can capture and edit images of fluorescent ethidium bromide, SYBR® Safe or GelGreen™ DNA gels and protein gels stained with Coomassie Blue at the workstation.

For an entry level system, the SMART5 comes with a ground breaking 5 million pixel CCD camera giving superb pixel resolution and unrivalled sensitivity. SMART5 offers a maximum viewing area of 20×24 cm which is very large for such a small, compact unit.

Complete system includes 5 MP camera with motor driven zoom lens f1.2; epi white light for sample positioning; UV032 filter; image capture and GeneTools analysis software. Transilluminator and converter screens not supplied (available separately).

VWR® SMART5	Technical specifications
Camera	5 MP, 12/16 bit CCD
Display	7" (17,8 cm) touchscreen
Dynamic range	3,6/4,8 (extended)
Filters	UV032
Image area (mm)	200×240
Lens	8 - 48 mm f/1.2
Software	GeneTools analysis
Weight	20 kg
W×D×H	310×450×750 mm

Description	Includes	Cat. No.
VWR® SMART5	Complete system includes 5 MP camera with motor driven zoom lens f1.2; epi white light for sample positioning; UV032 filter; image capture and GeneTools analysis software. Transilluminator and converter screens not supplied. See page 7	730-0496

VWR CHEMI only	Technical specifications
Camera	
Image resolution	4 MP
Sensor/image depth	16 bit (65,536 grayscales)
Lens	Fixed, f/0,95
QE @ 425 nm	0,73
Cooling	DT -57 °C
Illumination	
Epi white light	Yes
Use with external PC	Optional
Darkroom	
Cabinet	PC-operated (PC sold separately)
Image viewing area	11x8 cm
Software	
VWR Image Capture Software	Yes
VWR Gel Documentation Software	Yes (2 licenses)
Dimensions	
HxDxW	37,4x47x46 cm

VWR® CHEMI only can produce images of Western blots stained with chemiluminescence substrates, including:

- VisiGlo™ HRP chemiluminescent substrates
- ECL Western blotting substrates

VWR® CHEMI ONLY
CHEMILUMINESCENCE IMAGING

The new VWR® CHEMI only is dedicated to chemiluminescence imaging. This system is built for high performance and automation featuring a next generation high quantum efficiency CCD camera for even greater sensitivity. VWR® CHEMI only allows automatic capture of a quality image of any Western blot with a single 'click'.

Western blot imaging has never been as easy as with the VWR® CHEMI only. The system automatically selects the right imaging conditions for any blot regardless of the chemiluminescent reagents being used. All chemiluminescence applications can easily be handled by the VWR® CHEMI only. Produce superb images even from the faintest of signals.

The compact instrument sits on any laboratory bench taking up very little space.

The VWR® CHEMI only is ideal for small blots (up to 11x8 cm). The cooled 16 bit camera (ΔT -57 °C) with fixed lens (f/0,95) and data feedback amazes with a great quantum efficiency (73% @ 425 nm) and high resolution (4 MP).

Description	Includes	Cat. No.
VWR® CHEMI only	4 MP image resolution, 12/16 bit, 2 copies of VWR® Gel Documenation Software, darkroom, 730-1471 Image Capture Software.	**730-1471**

VWR® Imager2 gel documentation systems can produce images of gels stained with many fluorescent and colorimetric dyes, including:

- Coomassie Blue
- Silver stain
- Ethidium bromide
- GelRed™
- GelGreen™
- EZ-VISION
- peqGREEN
- SYBR® Gold/ Green/Safe
- GelStar®
- SYPRO® Red/ Ruby/Orange
- Fluorescein
- Rhodamine Red™
- Texas Red®
- Pro-Q® Diamond
- Deep Purple™
- GFP

VWR® Imager CHEMI Premium also offers imaging of:

- Western blots
- Chemiluminescence
- Bioluminescence
- Stain-free gels
- Alexa Fluor® dyes
- CF™ dyes
- Cy® dyes

We work with many more dyes than listed above, and as new dyes are released, we work to optimise their use with the VWR Imager range so please ask your VWR contact for updates.

VWR® IMAGER SYSTEMS
FLUORESCENCE AND CHEMILUMINESCENCE IMAGING

VWR Imager systems offer a wide range of different options depending on the configuration. Suitable for colorimetric, fluorescence, chemiluminescence and bioluminescence applications.

Choose from the following models:

- VWR® Imager2 for colorimetric and fluorescence applications only
- VWR® Imager CHEMI Premium for standard applications plus chemiluminescence and bioluminescence

Each system features a CCD camera, a motorised 7-position filter wheel and a motor-driven zoom lens to allow for a wide range of imaging applications.

The Imager CHEMI Premium comes with a cooled camera (ΔT -57 °C) that also enables use in chemiluminescence and bioluminescence applications.

Choose from a wide range of lighting options for both transillumination and epi illumination including UV, blue and white light.

The VWR® Imager's simple design allows for a wide range of configurations. Select from two cameras, many different filters and lighting options. The darkroom is fully microprocessor controlled, so that functions such as camera settings, lens control (with data feedback on VWR® Imager CHEMI Premium), filter selection and lighting can all be set up via PC (not included). In addition, optional settings such as manual or auto exposure time, neutral fielding and extended dynamic range are easily accessible for the user. All settings can be saved in user-defined configurations.

Technical specifications	VWR® Imager2	VWR® Imager CHEMI Premium
Camera		
Image resolution	3,8 MP	4 MP
Sensor/image depth	12/16 bit (4,096/65,536 grayscales)	16 bit (65,536 grayscales)
Lens	Motor-driven zoom, f/1,2	Motor-driven zoom, f/1,2 with data feedback
QE @ 425 nm	N/A	0,73
Cooling	No	DT -57 °C
Illumination		
VWR UV and blue light transilluminators	Sold separately	Sold separately
Epi white light	Yes	Yes
Epi UV light modules	Sold separately	Sold separately
Epi R/G/B and IR LED modules	No	Sold separately
Visible light converter (UV to white light)	Sold separately	Sold separately
Blue light converter screen (UV to blue light)	Sold separately	Sold separately
Darkroom		
Cabinet	PC-operated (PC sold separately)	PC-operated (PC sold separately)
Filter wheel	Yes (7-position, motor-driven)	Yes (7-position, motor-driven)
Image viewing area	25,5x21 cm	30,5x22,7 cm
Software		
VWR® Image Capture Software	Yes	Yes
VWR® Gel Documentation Software (for analysis)	Yes (2 licenses)	Yes (2 licenses)
Dimensions		
HxDxW	84x45x57 cm	84x45x57 cm

Description	Cat. No.
VWR® Imager2 3,8 MP 12/16 bit camera, 7-position filter wheel, 2 copies of VWR® Gel Documentation Software, darkroom, VWR® Image Capture Software. Transilluminator and converter not supplied. See page 7	730-1458
VWR® Imager CHEMI Premium 4 MP image resolution, 12/16 bit, 7-position filter wheel, 2 copies of VWR® Gel Documentation Software, darkroom, LED gantry, VWR® Image Capture Software. Transilluminator and converter not supplied. See page 7	730-1469

Cameras

Both VWR® Imager systems are fitted with CCD cameras. The VWR® Imager2 is equipped with a 3,8 MP camera, enabling analysis of e.g. colorimetric and fluorescent gels. The VWR® CHEMI Premium offers a 16-bit cooled (ΔT -57 °C) CCD camera with a resolution of 4 MP, allowing imaging of colorimetric, fluorescence, chemiluminescence and bioluminescence applications.

Lenses

All VWR® Imager systems record lens settings in order to meet GLP requirements. They are equipped with fast f/1,2 zoom lenses and directly controlled by the VWR® Image Capture Software. Both VWR Imagers deliver a superb optical performance.

Darkroom

The units incorporate a fully light-tight darkroom best suited for chemiluminescent and fluorescent imaging (e.g. UV/blue transillumination and UV, R/G/B and IR epi illumination). With a wide opening door and a sliding transilluminator (optionally UV, blue or white light), VWR Imagers offer maximum convenience. The electronic door locks automatically if exposures over 30 seconds are selected to prevent accidental interruption of imaging proceedings. VWR Imager units are built in a modular form to allow a wide choice of accessories to extend applications. The VWR® Imager2 is also fully upgradable for chemiluminescence applications.

Lighting

Range of lighting options

- UV transilluminators (254, 302 or 365 nm or a combination of any 2 wavelengths, either with 20x20 cm or 25x30 cm illumination area)
- Blue light transilluminator for safe dyes such as GelRed™, GelGreen™, SYBR® dyes and EZ-Vision (20x16 cm illumination area)
- Visible light converter screen enabling white light transillumination for colorimetric applications such as Coomassie Blue and silver stains
- Blue light converter screen enabling blue light transillumination for 'Safe' dyes such as GelRed™, GelGreen™, SYBR® dyes and EZ-Vision. UV light epi illumination (254, 302 and 365 nm)
- White light epi illumination (standard for all VWR Imagers)
- Epi illumination for R/G/B and IR fluorescence multiplex-imaging (only for VWR® Imager CHEMI Premium. Fitting LED modules can be added at any time in the future)
- Neutral fielding screens

Filters

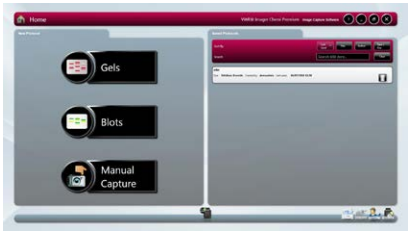
VWR Imager systems are fitted with an orange UV filter (572 – 625 nm) as standard. There are a number of additional filters that cover an extensive list of applications.

- Short pass filter - 516 – 600 nm
- Long pass filter - 611 – 641 nm
- Far right red filter - 670 – 780 nm
- Filters for R/G/B multiplex imaging
- Filters for Q-Dots

For more information please contact your local VWR sales office.

Computer (not supplied)

The darkroom is fully microprocessor controlled. Camera settings, lens control, filter selection and lighting are set-up via a PC. User-configurations can then be saved for future use. Please ask us for minimum computer requirements.

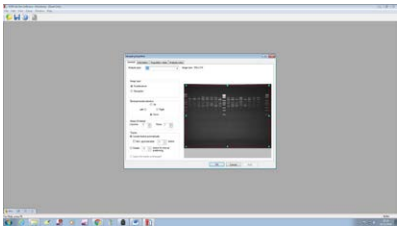


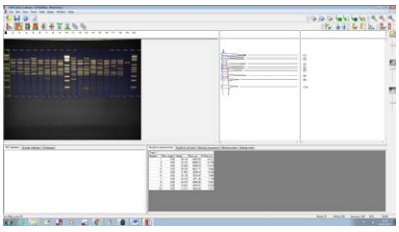
VWR® IMAGE CAPTURE SOFTWARE

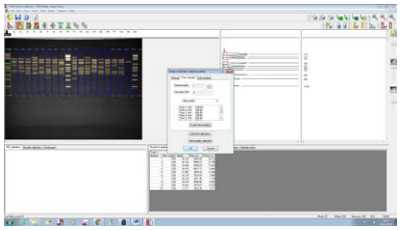
An advanced image capture software package specifically developed to simply the process of capturing images. Every VWR Imager system includes VWR® Image Capture Software.

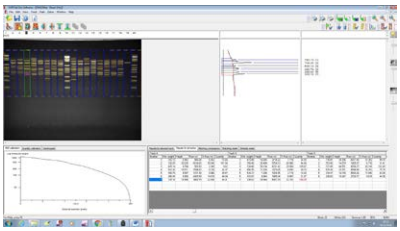
This fully automatic package controls camera integration, exposure time, lens and capture options, as well as auto-focus configurations. A complete database of dyes and reagents at your fingertips. A comprehensive post-processing tool box allows the user to add text, lines, circles, shapes and arrows to the captured images. One button technology – a single button is all that is required to capture the perfect image every time. Lens control for operating the aperture, focus and zoom position for the motor-driven lens (with displayed feedback data).

- Full on-screen control of darkroom, camera and lens functions
- Auto switch-off function for UV lighting
- 'Live image' feature in real time for easy focusing and positioning
- Automatic exposure control even for chemiluminescent imaging
- Series capture' for a series of images over different time periods (e.g. for determination of ideal exposure times for chemiluminescent samples
- Saturation detection for quantitative applications
- Image annotations, enhancement and manipulation
- Image sharpening and smoothing
- Style control (lines, size, colour, fonts)
- Image cropping
- Save images in SGD private file format for true GLP
- Export images in various formats (TIF, BMP, JPEG)
- Direct link to the VWR® Gel Documentation Software for analysis









VWR® GEL DOCUMENTATION SOFTWARE

VWR® Gel Documentation Software is an advanced analysis software for use with any VWR Imager system. This highly automated software can rapidly analyse an image of the gel in a matter of seconds. Simplicity is the key feature of the VWR® Gel Documentation Software, results can be obtained in a click of a button and with minimal training.

FEATURES OF THE VWR® GEL DOCUMENTATION SOFTWARE

ID analysis

- MW/BP analysis
- Automatic lane and peak detection
- Single or multiple gel analysis
- Automatic compensation for smiling or distorted bands – no skewing required
- MW/BP/Quantity calibrations
- Extensive reporting
- Spot analysis
- Spot grid – automatic
- Spot thresholding
- Quantitative and incidence analysis
- Multiple background subtraction methods

Colony counting

- Advanced colony counting algorithm
- Automatic counting/manual detection
- Two colour counting
- Automatic separator
- Light/dark colony selection
- Exclude regions function
- Sensitivity selector
- RGB multiplex analysis

Extensive applications and dye imaging

- ®RGB multiplex analysis
- Quantitative dots (Q-dots)
- SYBR® dyes
- Cy® dyes
- Alexa Fluor® dyes
- SYPRO® dyes
- Pro-Q® dyes
- Plus many more

730-1461
Transilluminator 20x20 cm, 302 nm

VWR® TRANSILLUMINATORS

All UV transilluminators slide out for easy access and offer homogeneous illumination for the best performance.

Main features and choices

- Safety cut-off (when in darkroom)
- Slide out of darkroom for easy access and sample positioning
- Different single and dual wavelengths available
- Different filter sizes available

730-1389
Transilluminator Blue, 20x16 cm, 470 nm

Ordering information

TRANSILLUMINATORS FOR VWR® BASIC

Transilluminator Blue slim is small and less expensive. 10x12cm sample size. Transilluminator Blue is larger and works best with the VWR® Imager2 and VWR® Chemi Premium darkrooms. Plus can be used with the VWR® Basic as this is bench top unit

Description	Cat. No.
Transilluminator 20x20 cm, 302 nm	730-1464
Transilluminator 20x20 cm, 365 nm	730-1465
Transilluminator 20x20 cm, 254 nm	730-1466
Transilluminator Blue, 20x16 cm, 488 nm	730-1467
Visible light converter (UV to white light)	730-1395

VWR TRANSILLUMINATORS FOR VWR SMART5

Description	Cat. No.
Transilluminator 20x20 cm, 302 nm	730-1461
Transilluminator 20x20 cm, 365 nm	730-1462
Transilluminator 20x20 cm, 254 nm	730-1463
Transilluminator Blue slim, 10x12 cm, 470 nm	730-1468
Transilluminator 20x24 cm, 302 nm, with runners	730-0497
Visible light converter (UV to white light)	730-1395
Blue light converter (UV to blue light)	730-1493

730-1390
Transilluminator Blue Slim 10x12 cm, 470 nm

TRANSILLUMINATORS FOR IMAGER2 AND CHEMI PREMIUM

Description	Cat. No.
Transilluminator 20x20 cm, 302 nm	730-1482
Transilluminator 25x30 cm, 302 nm	730-1483
Transilluminator 20x20 cm, 365 nm	730-1472
Transilluminator 25x30 cm, 365 nm	730-1473
Transilluminator 20x20 cm, 302/365 nm	730-1474
Transilluminator 25x30 cm, 302/365 nm	730-1475
Transilluminator 20x20 cm, 254 nm	730-1476
Transilluminator 25x30 cm, 254 nm	730-1477
Transilluminator 20x20 cm, 254/365 nm	730-1478
Transilluminator 25x30 cm, 254/365 nm	730-1479
Transilluminator 20x20 cm, 254/302 nm	730-1480
Transilluminator 25x30 cm, 254/302 nm	730-1481
Transilluminator Blue, 20x16 cm, 470 nm	730-1389
Transilluminator Blue Slim, 10x12 cm, 470 nm	730-1390
GX-Convert5 visible light converter (UV to white light)	730-1396
Blue light converter 25x30cm	730-1494
Blue light converter 21x26cm	730-1493
White light pad with brackets, 20x14 cm	730-1391
Epi UV module 254 nm	730-1394

Description	Cat. No.
Epi UV module 302 nm	730-1393
Epi UV module 365 nm	730-1392
Only for VWR® Imager CHEMI Premium	
Epi-LED blue module	733-2369
Epi-LED blue multiplexing module	733-2314
Epi-LED red module	733-2371
Epi-LED red multiplexing module	733-2372
Epi-LED green module	733-2370
Epi-LED green multiplexing module	733-2315
Epi-LED IR 740 multiplexing module	733-2316
Filter for epi-LED module, 800 nm (range 809 - 876; LiCor IRDye800), Chemi systems only	730-1524
525 nm filter for use with blue multiplexing LEDs	733-2305
Filter for Licor multiplexing 800 nm (809 - 876 nm)	730-1524
605 nm filter for use with green multiplexing LEDs	733-2480
705 nm filter for use with red multiplexing LEDs	733-2481

730-1260
Thermal printer, digital

PRINTER OPTIONS

VWR® Smart5, VWR® Imager2, VWR® Imager CHEMI Premium, VWR® CHEMI only can all be used with the following digital thermal printer and paper.

Description	Cat. No.
Thermal printer, digital	730-1260
Thermal paper, matt	730-2892
Thermal paper, glossy	733-2000

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