

version 1.0



2023-2024 Catalogue

Gel Documentation System



Innovative Life Sciences Tools

Life Sciences Research

Gel Documentation System

Major Science offers a wide range of Gel Documentation System specifically designed to fit researchers' specifications and budgets. Gel Documentation System are offered for a variety of applications depending on the system and camera configurations. This product line also includes UV Transilluminators and UV / Blue light transilluminators for all your imaging needs. All products feature user-friendly operation, compact size and outstanding functions.

More blue light technology instruments are introduced to the category of blue light, [Page 54](#)

▣ Imaging System 43-49

SmartView Pro Imager
 SmartView Pro Imager, CMOS
 SmartView Simple Imager System
 Digimage System

▣ Transilluminator 50-53

SmartView Transilluminator
 UV Transilluminator



*Please visit our website at www.majorsci.com for more product selection and detailed information.

SmartView Pro Imager

UVCI-2300

MS UVCI-2300, the truly standalone Gel Imaging System, delivers incredible image and sharpness with the power of an exceptional close-up monochrome 2.0 mega-pixel CCD camera, and get you ready for beautifully discriminable DNA/Protein gel images in the spaciouly intuitive 10.4" interface with color touch-screen. Our innovative systems are expandable with white and blue light plates coupled with the versatility of camera filters, no matter it's an EtBr or EtBr-free operations, simply tab to view. Many post-imaging features like drawer-type platform and UV protection shield are added to your convenience for gel excision.



UVCI-2300

2.0 MP CCD Camera



Control Interface



System setup



Default setting

Features

- Standalone gel doc system with high-quality monochrome CCD
- Exchangeable emission Filters provide for instant visualization
- Intuitive 10.4" interface with color touch-screen
- Zoom-able lens for proper picture size
- Movable platform for gel excision with UV-protection shield
- Automatic UV shut off mechanism
- Optional trans white light and blue light plates



UV light protection warning



Batch file management



Blue light plate

White light plate



White Light Plate (Flip type)

Blue Light Plate (Flip type)

UV Transilluminator (Drawer type)

UVCI-2300

* All images are for reference only, actual products might differ from the pictures above.
* Technical specifications subject to change without notice.

Specifications



UVCI-2300-EB



UVCI-2300-SG



UVCI-2300-F4



UVCI-2313



UVCI-2314



UVCI-2300-BL



UVCI-2300-WL



MJC-8-STYLUS-00000



CI-CL55+1

Model	SmartView Pro 2300
Cat. No.	UVCI-2300
Camera	1/1.8" interline UXGA monochrome progressive 2.0MP CCD
Pixels Size	4.4µm x 4.4µm
Lens (Camera)	F1.2, 12.5 – 75mm (with one +1 close-up lens), 6X zoom lens, manual
Camera Video Output	12bit
Filter (Camera) *Ordered Separately	Optical EtBr Filter / Optical SYBR Green Filter / Orange Amber Filter
Image Storage	Built-in 14GB Memory (3000 tiff images storage) and USB flash
Cabinet	Pull out, sliding transilluminator
Field Of View (WxL)	Maximum field of view 10.2"x8.3" (260x210mm)
Dimension (WxLxH)	Approx. 16.1"x16.7"x35.8" (410x425x910mm)
Weight	Approx. 62.8lbs. (28.5kg)
Display	10.4" color touch screen, 800x600
Viewing Window	Built-in UV viewing window
Window Filter	Amber Filter embedded in viewing window (580nm)
Light Source	Built-in drawer type UV Transilluminator 312(302)nm build-in LED white light
Optional Accessory	White Light Plate (power built-in) Blue light plate (power built-in) 470nm
Saved Image	Max. 16bit
Grayscale	12bit, 0-4095 gray levels
Safety	CE
Rated Voltage	100-240V~, 50/60Hz

*MS 1D Analysis Software (MBE-IMG-SW) is included in for image analysis only.

Ordering Information

Cat. No.	Product Description
UVCI-2300	SmartView Pro 2300 Imager System, UV light version

*Filters are necessary part for Gel Documentation System.

*All filters have to be ordered separately and discuss with local dealer before order.

Accessories

Cat. No.	Product Description
UVCI-2300-EB	SmartView EtBr Filter, 610nm (for UV)
UVCI-2300-SG	SmartView SYBR Green Filter, 520nm (for UV)
UVCI-2300-F4	SmartView Amber Filter, 580nm (for blue light)
UVCI-2313	SmartView Pro UV Protection Shield
UVCI-2314	SmartView Pro Lens Filter Stand, can hold up to 4 lens filters
UVCI-2300-BL	Blue Light Plate
UVCI-2300-WL	White Light Plate 210x260mm
MJC-8-STYLUS-00000	Stylus Pen
CI-CL55+1	55mm Close up lens +1 for CCD Image System



Viewing via window

Viewing via screen

Viewing window
(Amber filter, 580nm)

SmartView Pro Imager, CMOS

FC CE

UVCI-1100 series

The SmartView Pro 1100 provides the basic feature and standard operation. All important features such as safety UV door, UV safety-cut-off switch function, 1D analysis software and are included as standard. 1D analysis software can be used for DNA/RNA gels and SDS page images observation and capture. Moreover, it can be used as an image analysis software for DNA/RNA gels and dot blotting. Blue light module, white light plate and optical and amber filters are available for a variety of applications. Enjoy the most compact CMOS imaging system for all of your laboratory work.



PC is not included

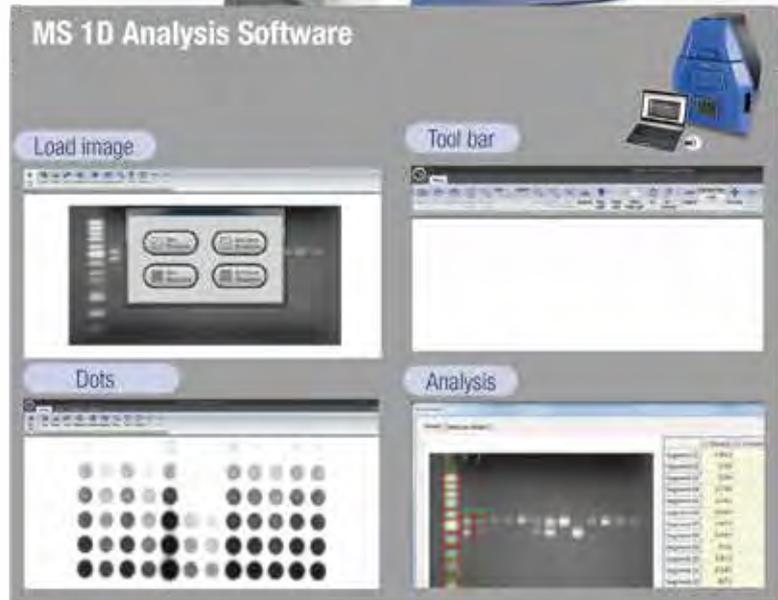
UVCI-1100



5.0 MP Monochrome Camera



White Light Plate for protein analysis



Features

- High resolution 5.0 megapixel monochrome camera (UVCI-1100)
- PC integration with real time image
- Capture/Analysis software included
- Pull out UV Transilluminator for easy gel cutting
- Easy installation, ready to use right out of the box
- One touch image capture
- Variety of optional accessories available
- UV safety cut-off switch when door is open
- CE and FCC certification



Easily gel cutting design with UV



Viewing window (Amber filter, 580nm)

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Specifications

Model	SmartView Pro 1100
Cat. No.	UVCI-1100
UV Light	Built-in drawer type UV Transilluminator 312(302)nm
Camera	1/2.5" 5M Pixel Monochrome sensor
Pixels Size	2.2µmx2.2µm
Lens (Camera)	6mm, F1.2
Camera Video Output	12-bit
Filter (Camera) *Ordered separately	Optical EtBr Filter / Optical SYBR Green Filter / Yellow Amber Filter / Orange Amber Filter
Image Storage	PC
Software Support	Window 10 / 8 / 7 (64bit & 32bit) / XP / Vista
Cabinet	Pull out, sliding transilluminator
Field Of View (WxL)	Approx. 10.2"x8.3" (260x210mm)
Dimension (WxLxH)	Approx. 16.1"x15.9"x22.4" (410x405x570mm)
Weight	Approx. 54lbs. (24.5kg)
Display	LED indicator light
Viewing Window	Built-in UV viewing window
Window Filter	Built-in Viewing Window Amber Filter 560nm
Light	White light (standard)
Optional Accessory	White Light Plate (power built-in)
	Blue light (power built-in) 470nm
Safety	CE, FCC
PC Connection	USB port
1 D Analysis Software	Cat. No. MBE-IMG-SW included
Saved Image	BMP/JPEG/PNG/TIFF, 8 bit; PNG/TIFF, 16 bit
Rated Voltage	100-240V~, 50/60Hz, 2A

* iPad and PC is not included.

* MS 1D Analysis Software (MBE-IMG-SW) is included in UVCI-1100 for image capture and analysis .

Ordering Information

Cat. No.	Product Description
UVCI-1100	SmartView Pro 1100 Imager System, standard version
UVCI-1101	SmartView Pro 1100 Imager System, standard version, high UV performance

*Filters are necessary part for Gel Documentation System.

*All filters have to be ordered separately and discuss with local dealer before order.

Accessories

Cat. No.	Product Description
UVCI-1000-WL	White Light Plate for SmartView Pro Imager System
UVCI-1000-BL	Blue Light Module for SmartView Pro Imager System
UVCI-1100-EB	SmartView EtBr Filter, 610nm (for UV)
UVCI-1100-SG	SmartView SYBR Green Filter, 520nm (for UV)
UVCI-1100-F3	SmartView Amber Filter 560nm
UVCI-1100-F4	SmartView Amber Filter 580nm
UVCI-1000-F1	Viewing window Amber filter, 560nm for SmartView Pro Imager System
UVCI-1003	SmartView Pro UV Protection Shield
UVCI-1004	SmartView Pro Lens Filter Stand, can hold up to 4 lens filters
MBE-G-Y1	Amber Filter Viewing Glasses, 560 nm (optional)



Epi-blue light for optional light source



Optional blue light device



Sliding transilluminator

SmartView Simple Imager System

MUV-IMG-CA

Major Science offers the SmartView Simple Imager System for your UV or blue light Transilluminator. This unit is designed extremely light in weight and compact in size.

For any lab with limited budget and lab space, the SmartView Simple Imager System is definitely the choice of selection. It is compatible with most transilluminators on the market. (for any maximum viewing size less than 260x210mm)

The digital camera model gives an impressive resolution of 24.1 megapixels, and provides you a PC-free operation environment with high mobility.

Features

- Extremely light weight and compact in size
- Effective Pixels Approx. 24.1 megapixels (Total Pixels Approx. 25.8 megapixels)
- Can be operated PC free
- Optical filters available upon ordering (EtBr, SYBR, and 580nm Amber filter)

Specifications

Camera spec.	
Camera Type	24.1MP digital camera, Wi-Fi function
Effective Pixels	Approx. 24.2 megapixels (Total Pixels Approx. 25.8 megapixels)
Sensor	22.3 x 14.9mm CMOS sensor
Max. Aperture	f/3.5-6.3 (IS STM Lens)
Shutter Speed	1/4000 - 30sec. (available range varies by shooting mode)
Storage Media	SD memory card, Wi-Fi to PC, Smartphone or Tablet
Computer Interface	Hi Speed USB (Micro), HDMI(Micro), WiFi connection
Video Out	Full HD / HD / MP4 / 4K
Image Resolution	(3:2)6000x4000
Lens	35mm film equivalent focal length, approx. 1.6 times the lens focal length
File Format	Designed rule for Camera File system 2.0
Data Type	JPEG, RAW(CR3 14 bit)
	RAW+JPEG simultaneous recording possible
Filter (For Camera, Optional)	"EtBr filter / SYBR Green filter / Amber Filter *ordered separately"
Darkroom	
Dimension (WxLxH)	Approx. 9.3"x12.5"x16.5" (236x317x420mm)
Material	Acrylonitrile Butadiene Styrene (ABS)
Weight	Approx. 3.1lbs. (1.4Kg)
Camera Adapter Material	Aluminum

* iPad and PC not included.

Accessories

Cat. No.	Product Description
Filter (for camera) *ordered separately	
DI-EB49	EtBr filter, 49mm
DI-SG49	SYBR Green filter, 49mm
DI-AM49	Amber filter, 49mm

Ordering Information

Cat. No.	Description
MUV-IMG-CA	SmartView Simple 310 Imager system, with 24.1 MP digital camera
MUV-IMG-CA-01	SmartView 310 holder kit, includes hood and camera adapter only

*Filters are necessary part for Gel Documentation System.

*All filters have to be ordered separately and discuss with local dealer before order.



MUV-IMG-CA



MUV-IMG-CA

MUV-IMG-CA-01



MUV-IMG-CM + MUV series



MUV-IMG-CM + MUVB series

DI series

For DI series

The Digimage System is a simple, compact gel documentation system with a rear digital control panel. It contains a digital camera with a superb resolution of 24.1 megapixels. The image is viewed from a large 8" TFT colorful screen with monitor purpose only, for a lab with limited space and low budget requirements, the Digimage System is definitely your top choice since it can be operated without computer. A variety of images can be captured including: agarose and other fluorescent gels, colorimetric gels, auto radiography film, and blotting membranes. A safety switch is equipped to turn off the UV Transilluminator automatically when the front door is opened. Files can be saved in a variety of formats, including RAW format, for transfer to a computer for storage and analysis.

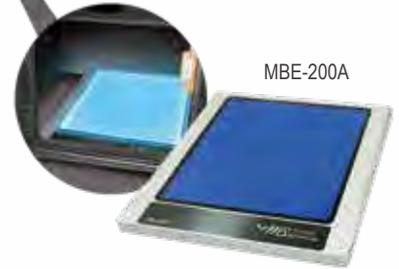


DI-01



Features

- Effective Pixels Approx. 24.1 megapixels (Total Pixels Approx. 25.8 megapixels)
- High resolution 8" TFT screen
- Digital control panel
- Compact chamber and lightweight
- Can be operated PC free
- Inner white light LED at two sides
- Safety door switch
- Optional gel analysis software package available
- Universal rated voltage: 100-240V~



MBE-200A



DI-HD

DI-01 is offered as a complete system for the user to perform image capture, including:

- 1 x Digimage System hood
- 1 x Digital camera
- 1 x DC coupler
- 1 x 8" color TFT screen
- 1 x Memory card
- 1 x Memory card reader



High resolution 8" TFT screen



Wi-Fi function

PC is not included

Specifications

Camera Spec.	
Camera Type	24.1MP digital camera, Wi-Fi function
Effective Pixels	Approx. 24.1megapixels (Total Pixels Approx. 25.8 megapixels)
Sensor	22.3 x 14.9mm CMOS sensor
Max. Aperture	f/3.5-6.3 (IS STM Lens)
Shutter Speed	30 - 1/4000 sec (1/3 stop increments), Bulb (Total shutter speed range. Available range varies by shooting mode)
Storage Media	SD memory card, Wi-Fi to PC, Smartphone or Tablet
Computer Interface	Hi Speed USB (Micro), HDMI(Micro), WiFi connection
Video Out	Full HD / HD / MP4 / 4K
Image Resolution	(3:2)6000x4000
Lens	35mm film equivalent to 1.6x the focal length
File Format	Designed rule for Camera File system 2.0
Data Type	JPEG, RAW(CR3 14 bit) RAW+JPEG simultaneous recording possible
Filter (For Camera, Optional)	"EtBr filter / SYBR Green filter / Amber Filter *ordered separately"
Monitor	
Type	8" TFT LCD Monitor
Resolution	1024x600 pixels
Brightness	300cd / m ²
Constant Ratio	700:1
Display Mode	NTSC / PAL auto switch

DI-01 Spec.	
Multi-Power Source	For camera, Inner light lamp, TFT monitor
Inner White Light	2 white LED, 3 watt/LED
Safety Device	Safety door switch
Dimension (WxLxH)	11.4"x13.3"x15.9" (290x339x403mm)
Material	Painted metal
Rated Voltage	110/220V~, 50/60Hz, 1.6A
Weight	Approx. 12.9lb (5.8kg)
Camera Adapter	Aluminum
DI Darkroom	
Dimension (WxLxH)	11.4"x13.3"x15.7" (290x339x398mm)
Weight	Approx. 11.9lb (5.4kg)

Ordering Information

Cat. No.	Description
DI-01	Digimage System with 24.1 megapixels digital camera
DI-HD	Digimage System without digital camera

Accessories

Cat. No.	Description
DI-DR-E12	DC coupler
DI-WLA3-110/220	White Light Table 297x400mm (110/220V)
DI-WLA4-110/220	White Light Table 210x297mm (110/220V)
DI-WLA6-110/220	White Light Table 105x150mm (110/220V)
Filter (for camera) *ordered separately	
DI-EB49	EtBr filter, 49mm
DI-SG49	SYBR Green filter, 49mm
DI-AM49	Amber filter, 49mm

*Filters are necessary part for Gel Documentation System.

*All filters have to be ordered separately and discuss with local dealer before order.



DI-01 + MUV series



DI-01 + MUVB series



DI-DR-E12



DI-WLA3 (297x400mm)
DI-WLA4 (210x297mm)
DI-WLA6 (105x150mm)



DI-EB49



DI-SG49



DI-AM49

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SmartView Transilluminator

MUVB series

SmartView Transilluminator is the next illuminator generation for your lab. Combining the blue and UV light, this equipment allows you to work either using blue or UV light with your samples.

The Epi-Blue light is proportionally emitted on samples to give excellent fluorescence for the examination of nucleic acid bands. As the single or dual wavelength UV light allows the induction of stronger signals.

Moreover, since blue light is within visible light spectrum, it easily provides just enough energy to induce the signals without endangering operator safety.

In addition, this two-in-one system provides you additional convenience for the work on any sample with UV light or using blue light simultaneously without moving your gel back and forth. The SmartView Transilluminator is the ultimate source for any of your lab practice.

Features

- Built-in blue light LED module with UV light
- Single or dual wavelength models are available for different application purposes
- Adjustable UV protection cover for better viewing angle efficiency
- Industry leading long life UV Filter
- Fast start up without flickering to instantaneous tube illumination
- High/Low intensity switch to minimize DNA degradation
- High efficiency reflector provides optimum use of UV light



MUVB



Dye Application Guide

Cat. No.	UV Light	Blue Light
SYBR® Green I (DNA)	√	√√
SYBR® Green II (RNA)	√	√√
SYBR® Gold	√	√√
Midori Green Direct	√	√√
Hydra Green™ Safe DNA Dye	√	√√
HD Green™ DNA Stain	√	√√
SafeView DNA Stain	√√	√
SYBR® Safe	√	√
Midori Green	√	√
Midori Green Advanced	√	√
Serva DNA Stain Clear G	√√	√
GelGreen™	√	√
GelRed™	√√	
Ethidium Bromide	√√	
HealthView™	√√	

√√ Excellent

√ Good



Built-in blue LED module provides flexibility in DNA stain selection



UV light applied



Blue light applied



Removable amber Filter

Specifications

Model	SmartView
Filter Size (WxL)	Approx. 8.3"x8.3" (210x210mm)
Intensity Switch	High (100%) / Low (70%) intensity switch for single wavelength model
Fast Response	High quality starter to light up the tubes instantaneously and cause no blinking
Blue Light Source	1W x 18 lamps
UV Resistance Plastic Cover (WxL)	Approx. 8.9"x10.2" (225x260mm) (Transparent)
Blue Light Resistance Plastic Cover (WxL)	Approx. 8.9"x10.2" (225x260mm) (Orange)
Dimension (WxLxH)	Approx. 13.4"x11.3"x6.9" (340x286x176mm)
Rated Voltage	100-230V~, 50/60Hz, 2A
Weight	Approx. 24.7lb (11.2kg)

Model	Cat. No.	Type	Wavelength	UV Light Source (1tube / 8W)
SmartView 111	MUVB-111	Single	312(302)nm	5 tubes
SmartView 112	MUVB-112	Single	254nm	5 tubes
SmartView 113	MUVB-113	Single	365nm	5 tubes
SmartView 114	MUVB-114	Single	312(302)nm (high performance)	5 tubes
SmartView 121	MUVB-121	Dual	254nm / 312(302)nm	4 tubes / 5 tubes
SmartView 122	MUVB-122	Dual	254nm / 365nm	5 tubes / 4 tubes
SmartView 123	MUVB-123	Dual	254nm / 312(302)nm (high performance)	4 tubes / 5 tubes

Ordering Information

Cat. No.	Product Description
MUVB-111	SmartView 111 Transilluminator with blue light and built-in UV, single wavelength 312(302)nm
MUVB-112	SmartView 112 Transilluminator with blue light and built-in UV, single wavelength 254 nm
MUVB-113	SmartView 113 Transilluminator with blue light and built-in UV, single wavelength 365 nm
MUVB-114	SmartView 114 Transilluminator with blue light and built-in UV, single wavelength 312(302) nm, high performance
MUVB-121	SmartView 121 Transilluminator with blue light and built-in UV, dual wavelength 254/312(302)nm
MUVB-122	SmartView 122 Transilluminator with blue light and built-in UV, dual wavelength 254/365nm
MUVB-123	SmartView 123 Transilluminator with blue light and built-in UV, dual wavelength 254/312 (302)nm, high performance

* For different single wavelength models. please consult with your regional manager.

Accessories

Cat. No.	Product Description
MBE-G-Y1	Amber Filter Viewing Glasses, 560 nm (optional)



MBE-G-Y1



MUVB series + DI-01



MUVB series + MUV-IMG-CA

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UV Transilluminator

MUV series

The bench-top UV Transilluminator series offers the researcher uniform and intense sources of ultraviolet light (radiation) with a compact footprint. Their special design emits either one or dual intensity excitation UV wavelengths for back-illumination of transparent fluorescent materials. 254nm, 312 (302)nm, 365nm, 254 & 365nm, and 254 & 312 (302)nm modes are available for different applications. There are two choices of filter size viewing dimensions, 260x210mm and 210x210mm for different user requirements. The 365nm mode is offered for easy view of gels under long wave for extended periods of time avoiding photo nicking damage. The 254nm mode is used to irradiate samples. The 312 (302)nm mode is suggested for general gel operating. The single wavelength modes have a high intensity / low intensity switch equipped. All bench-top transilluminator modes are compact, lightweight and economical.

A high performance model, 312 (302)nm UV Transilluminator with a strong lighting and longer life time tubes, was introduced for demanding requirements.



FC CE



Adjustable UV protection cover



MUV-21 series



MUV-26 series

Features

- 254nm or 312 (302)nm or 365nm or 254/365nm or 254/312 (302)nm modes available
- 260x210mm or 210x210mm view dimension
- High intensity / low intensity switch for single wavelength model
- Adjustable UV protection cover for better viewing angle efficiency
- High performance models available
- Long life time filter

Specification

Model	MUV26 series	MUV21 series
Wavelength	254 / 312 (302) / 365nm	
Filter Size	Approx. 10.2"x8.3" (260x210mm)	Approx. 8.3"x8.3" (210x210mm)
Light Source	6 tubes, 8W/tube	
Filter	Long life filter	
	High efficiency reflector	
Intensity Switch	High (100%)/Low (70%) intensity switch for single wavelength mode	
Fast Start Up	High quality starter to simultaneously illuminate tubes when switched on and no blink	
UV Resistant Plastic Cover (WxL)	Approx. 13"x9.8" (330x250mm)	
Dimension (WxLxH)	Approx. 13.4"x11.6"x3.9" (340x295x100mm)	
Weight	Approx. 16.5lb (7.5kg)	
Rated Voltage	110V/220V-	

Ordering Information

Cat. No.	Product Description
MUV21-254	210x210mm Transilluminator for 254nm
MUV21-312	210x210mm Transilluminator for 312 (302)nm
MUV21-312H	210x210mm Transilluminator for 312 (302)nm, high performance
MUV21-365	210x210mm Transilluminator for 365nm
MUV21-254/365	210x210mm Transilluminator for 254 and 365nm
MUV21-254/312	210x210mm Transilluminator for 254 and 312 (302)nm
MUV21-254/312H	210x210mm Transilluminator for 254 and 312 (302)nm, high performance
MUV26-254	260x210mm Transilluminator for 254nm
MUV26-312	260x210mm Transilluminator for 312 (302)nm
MUV26-312H	260x210mm Transilluminator for 312 (302)nm, high performance
MUV26-365	260x210mm Transilluminator for 365nm
MUV26-254/365	260x210mm Transilluminator for 254 and 365nm
MUV26-254/312	260x210mm Transilluminator for 254 and 312 (302)nm
MUV26-254/312H	260x210mm Transilluminator for 254 and 312 (302)nm, high performance

Accessories

Cat. No.	Product Description
MUV-T254	8W 254nm UV lamp
MUV-T312	8W 312 (302)nm UV lamp
MUV-T365	8W 365nm UV lamp
MUV-F21-254/365	21x21cm Filter for built-in 254/365nm UV Transilluminator (with stainless steel frame)
MUV-F21-312	21x21cm Filter for built-in 312(302)nm UV Transilluminator (with stainless steel frame)



MUV series + DI-01



MUV series + MUV-IMG-CM

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Taiwan Headquarters

Headquarters:

No. 156, Sec. 1, Guoji Rd., Taoyuan Dist.,
Taoyuan City 33061, Taiwan
T/+886-3-3762878
F/+886-3-3761310

Factory:

No.19, Ln. 207, Huakang St. Bade Dist.,
Taoyuan City 33464 Taiwan
T/ +886-3-3623319
F/ +886-3-3623133
Email : info@majorsci.com

US Office

19959 Sea Gull Way
Saratoga, CA 95070
U.S.A.
T/ +1-408-366-9866
F/ +1-408-446-1107

Shanghai Office

Room 612, International business exhibition center,
9300 Hunan Road, Pudong, Shanghai, China
National toll-free No.:400-823-9177
T/ +86-21-50795277
F/ +86-21-50795277

India Office

D. No. 12-13-99, Satguru Apts. Extn.
Street. No. 3, Lane No.1, Tamaka
Secunderabad – 500 017. India
T/ +91-40-27001515
T/ +91-40-27001586



www.majorsci.com

info@majorsci.com

