

# In Genius<sup>3</sup>

**LOW COST  
HIGH PERFORMANCE  
GEL DOCUMENTATION  
AND ANALYSIS**



**S Y N G E N E**  
A DIVISION OF THE SYNOPTICS GROUP

# INGENIUS 3

When simplicity and budget matter. The **InGenius 3** gel documentation and analysis system is compact, easy to use and offers an affordable route to gel capture and analysis. Using many of the features found on the higher specification Syngene products, the **InGenius 3** makes a simple but sophisticated system for any laboratory.

The **InGenius 3** uses a high performance 3m pixel camera. The darkroom assembly is easily connected to a PC. GeneSys image acquisition software quickly and easily enables images to be captured, archived and edited if required.

FEATURES	BENEFITS
Compact darkroom with sliding door - 62(h) x 37.5(d) x 40(w) cms	Small footprint taking up minimal laboratory bench space
3 million pixel camera	Good quality images
12/16 bit images (0 - 65,535 grey levels dynamic range)	Precise quantitation
Filter drawer	Capable of viewing a wide range of different fluorophores
UV to visible light converter screen (option)	Easy imaging of protein gels, autoradiographs and colony plates
GeneTools analysis software	Saves time by automating analysis of gels, colony plates & blots
Connect to any PC	Use a computer of your choice
Transilluminators (option)	Choice of UV or blue light





# SUPERIOR GEL ILLUMINATION

UltraSlim Blue-LED option uses a high intensity LED array which can illuminate a range of dyes including GelRed, GelGreen, SYBR®Safe, EtBr and the new UltraSafe blue dye. UltraSlim-LED provides a uniform and bright excitation across gels up to 12 x 10cm.

The unit is compact and slimline and has an array of LEDs which illuminate samples from the side, providing low signal to noise ratio (S/N). A built-in filter/lid provides the optimum viewing conditions and is ideal for band cutting.

UltraSlim Blue-LED is used instead of the UV transilluminator and is positioned on a sliding tray.



## ULTRASLIM-LED SPECIFICATION

Dimension (mm)	210(d) x 210(w) x 30(h)
Gel size (mm)	100 x 120
Wavelength	470nm
Power	DC 24v 0.65A
Weight	1.3kg

## CAPTURE, STORE & MANIPULATE IMAGES WITH GENESYS

- Image acquisition with a single button
- Auto exposure/manual exposure/series capture
- Extended dynamic range up to 65,536 grey levels
- Dynamic fielding for correction of uneven background illumination
- Toolbox - annotation/sharpening/inverting
- Saturation control - see which areas of the image are over-exposed

## ANALYSE, DOCUMENT & QUANTIFY GELS WITH GENETOOLS

- 1D analysis at the 'click' of a button
- MW/BP calibrations
- Quantity calibrations
- Spot blot/colony plate analysis
- Band matching functions



# INGENIUS 3



### CAMERA

CCD digital camera

- 3m pixels
- USB2 connection



### LENS

Superior zoom lens for exceptional image quality.



### FILTER DRAWER

Use a range of filters for extensive choice of applications.



### SAFETY SWITCH

Protects from accidental UV exposure when opening door.



### WHITE LIGHT

For sample positioning and focusing.



### TRANSILLUMINATOR (OPTIONAL)

For UV or blue light

- UV transilluminator, slides in and out, of darkroom
- Blue LED light (UltraSlim-LED) - sits on a slide in and out tray
- Visible light converter
- Blue light converter screen



### SLIDING DOOR

Space saving sliding door.



# GENESYS IMAGE ACQUISITION SOFTWARE

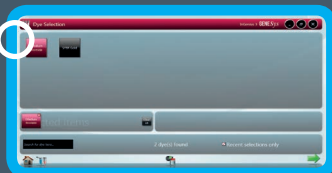
GeneSys software is intuitive and ensures that perfect images are captured every time. An image browser facility allows you to view stored images. Previously saved protocol configurations can be easily accessed.



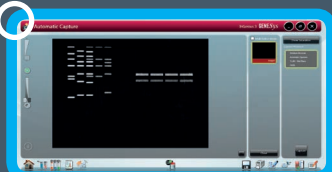
The user need only select the sample format, sample type and matrix type for the InGenius<sup>3</sup> system to configure itself to capture the best image.



The type of dye being used can be selected from the extensive internal database.



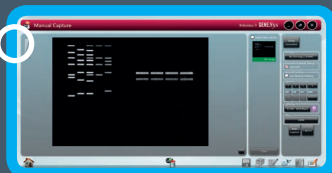
When using automatic capture the system will advise the optimum imaging conditions. Captured images are displayed in the main part of the screen, while previously captured images are displayed in an image pool as a series of thumbnails.



A full range of editing tools are available to annotate, manipulate, enhance, save and print the image.



The user can have full manual control of all functions.



# INGENIUS 3 APPLICATIONS

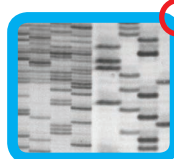
## DNA

With **InGenius 3** you can use the UV transilluminator to capture images of DNA gels stained with Ethidium Bromide, SYBR® dyes and many other fluorophores.



## AUTORADS

**InGenius 3** features a mega resolution camera which is ideal for capturing images requiring high detail. This is especially true when looking for 'separation' between bands and spots. Capturing high quality images of Autorads is one of the strengths of **InGenius 3**.



## VISIBLE LIGHT

With the transmitted visible light converter, **InGenius 3** can be used to view gels which have been stained with silver stain and Coomassie blue. You can also view tissues, slides and films.



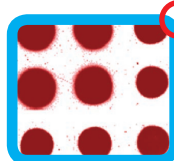
## BLUE LIGHT

The blue light LED transilluminator allows you to view some fluorescent stains with better clarity and with less damage to DNA. Blue light converter screen option available for viewing 'safer' fluorescent dyes such as SYBR® safe.



## SPOT BLOTS

Capturing and analysing spot blots is another very simple application for **InGenius 3** and GeneTools software.



These are just some of the applications that can be used with **InGenius 3**. The Syngene Applications & Support Department is always ready to discuss your particular application needs and how they can be imaged using the **InGenius 3**. The Syngene website contains further technical notes and FAQ's covering the use of all Syngene gel documentation systems. Further details can be found at [www.syngene.com](http://www.syngene.com)

# SPECIFICATION



**INGENIUS 3**

## SYSTEM

### CAMERA

Sensor	1/3 inch
Resolution	3 million pixels
Bit depth	12/16 bit (extended)
Greyscales	0 - 65,536
Dynamic range	3.6/4.8 (extended)
Lens	Manual zoom, 6.5 – 39, F1.4
Viewing area	20 x 20cm

### ILLUMINATION

Slim transilluminator 20 x 20cm	Option
UltraSlim Blue-LED transilluminator 10 x 12cm	Option
Visible light converter	Option
White Epi overhead	Yes
Blue light convertor screen	Option

### SOFTWARE

GeneSys image capture	Yes
GeneTools image analysis	Yes
GeneDirectory	Option

Over 75,000 scientists world-wide in pharmaceutical and biotech companies, as well as academic and government institutions, have chosen Syngene as their expert imaging partner. If you'd like to find out why, please contact us or one of our distributors for more information and a demonstration of the revolutionary **InGenius 3**.

**Please refer to [www.syngene.com](http://www.syngene.com) for all ordering information**

#### **Syngene Europe and International Headquarters:**

Beacon House Nuffield Road Cambridge CB4 1TF UK  
Tel: +44 (0)1223 727123 Fax: +44 (0)1223 727101 email: [sales@syngene.com](mailto:sales@syngene.com)

#### **Syngene USA Headquarters:**

5103 Pegasus Court Suite L Frederick MD 21704 USA  
Tel: 800-686-4407/301-662-2863 Fax: 301-631-3977 email: [ussales@syngene.com](mailto:ussales@syngene.com)

**Website: [www.syngene.com](http://www.syngene.com)**