

# **eneGnome**

**DEDICATED  
CHEMILUMINESCENCE  
IMAGING SYSTEM**

**DELIVERS SIMPLICITY  
AND SENSITIVITY**



# COMBINING SIMPLICITY WITH SENSITIVITY

Despite chemiluminescence blotting being a widely used technique to separate and detect proteins, at Syngene we know that when you're imaging Westerns you are looking for sensitivity equal to film.

Using the knowledge of chemiluminescence imaging that we've acquired over 35 years, we've developed the **GeneGnome XRQ** dedicated chemiluminescence imaging system, allowing you to easily produce picture perfect Westerns every time.

## SIMPLE

Built on Syngene's unique **GeneGnome** system, **GeneGnome XRQ** has an optimized short 'camera to sample' distance, making it easy for you to perform rapid chemiluminescence imaging.

## SENSITIVE

Featuring a high quantum efficiency, cooled CCD camera, **GeneGnome XRQ** ensures you can see faint bands with minimal background on your blot images.

## SMALL

The compact **GeneGnome XRQ** takes up minimal bench space, allowing you more room for your experiments.



(Tablet not included)

A young Black woman with her hair in a bun, wearing a white lab coat, blue safety glasses, and blue nitrile gloves, is focused on using a pipette to transfer liquid into a small vial. The background shows a laboratory with a window, a desk with a computer monitor, and various lab equipment. The image is framed by a dark blue border at the top and bottom, with decorative light blue and teal shapes in the upper right corner.

“WESTERN BLOT IMAGING  
HAS NEVER BEEN SO EASY”

# UNIQUE GENEGNOME SYSTEM



## ADVANCED LENS

Great imaging starts with a great lens and this F/0.95 fixed focus lens gives optimum image quality.



## HIGH QUANTUM EFFICIENCY CAMERA

The 4-megapixel resolution CCD camera is very sensitive to low level light emissions, producing images of up to 16m pixels, allowing you to see and separate those faint, close bands on blots up to 11cm x 8cm. The **GeneGnome XRQ** camera has double the dynamic range of film and with a quantum efficiency of greater than 73% @ 425nm gives outstanding sensitivity for chemiluminescence imaging.



## SUPER LOW COOLING

Peltier cooling with exceptional signal to noise performance lets you have long exposure times. You can detect your weak and strong chemiluminescent bands on one crisp image, without any annoying background noise.



## WHITE LIGHT

To position your blots and detect coloured markers, the **GeneGnome XRQ** comes with overhead long-life white LED EPI lighting.



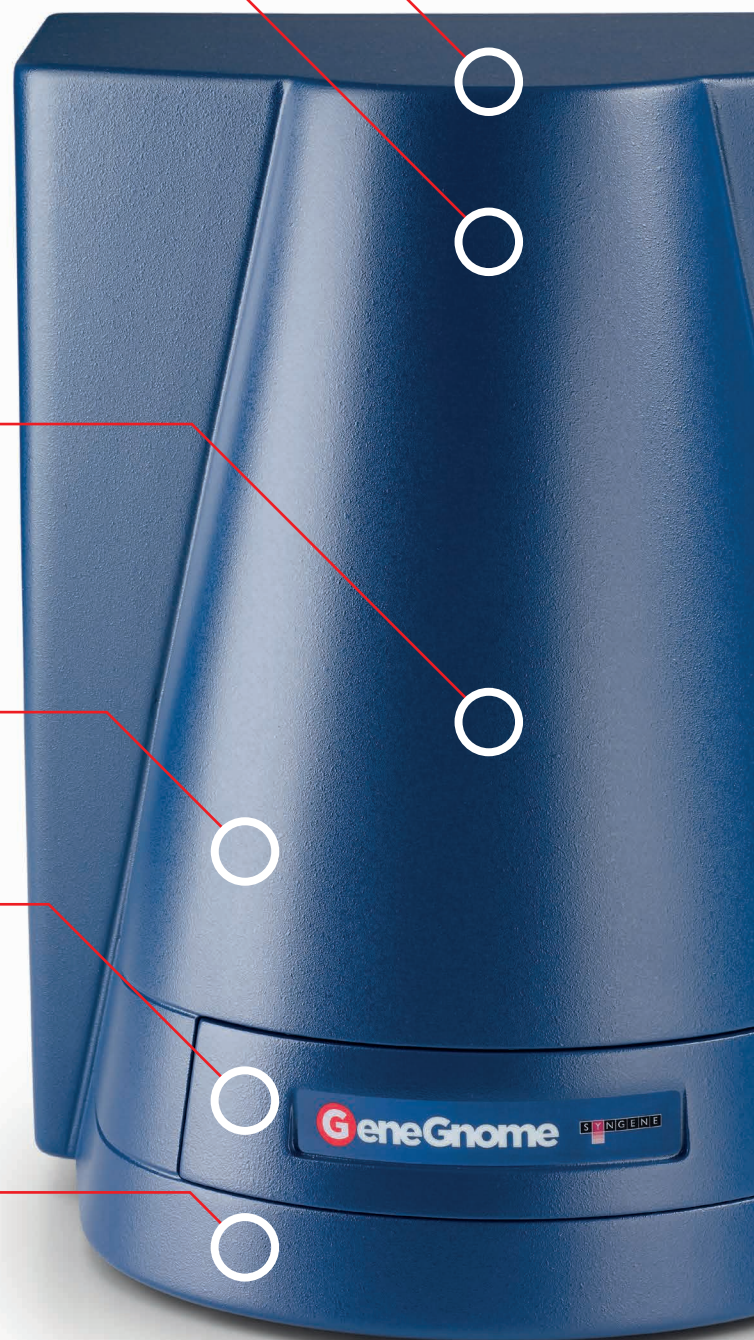
## SLIDE-OUT DRAWER

The automatic slide-out drawer gives you more bench space and allows you to easily position your blot. Its magnetic lock ensures that the darkroom is completely light-tight, resulting in perfect image capture every time.



## PC CONTROL

**GeneGnome XRQ** easily integrates to your choice of PC and printer giving you the flexibility to run the GeneSys touch screen controls on a large screen, store a huge library of images and rapidly print low resolution or publication quality pictures.



# GENESYS LOAD AND GO IMAGING

Using GeneSys capture software, you can set up the **GeneGnome XRQ** to do single auto-capture, series capture or manual capture of your Westerns to generate your choice of one or a series of timed images.

## BRIGHTER WESTERNS

When you're imaging low light chemiluminescence Westerns you can use the GeneSys binning feature to reduce exposure times. Binning combines pixels into larger formats to produce a super pixel which collects more light, increasing sensitivity or speeding up your image capture time.

## PICTURE PERFECT

To produce a publication ready picture of your Westerns you simply choose high-resolution images in the GeneSys software effective resolution settings. You can even generate images of colorimetric molecular weight markers alongside your chemiluminescent bands as GeneSys allows you to automatically overlay them on your Western images.

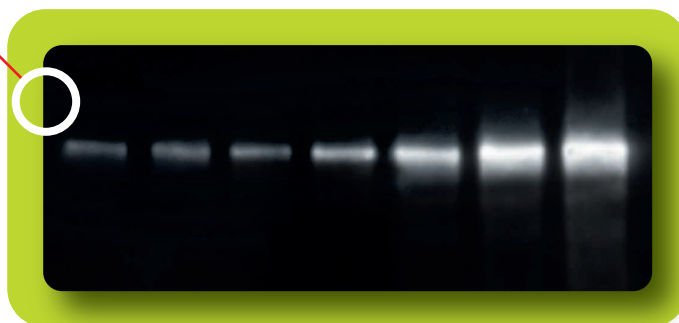
## FAST IMAGE ANALYSIS

The **GeneGnome XRQ** comes with GeneTools image analysis software which you can use for applications such as automatically calculating molecular weight and relative quantitation of protein bands. Using GeneTools you can also make your own image edits and your data is easily saved as image files or can be exported to Microsoft Excel and Word.

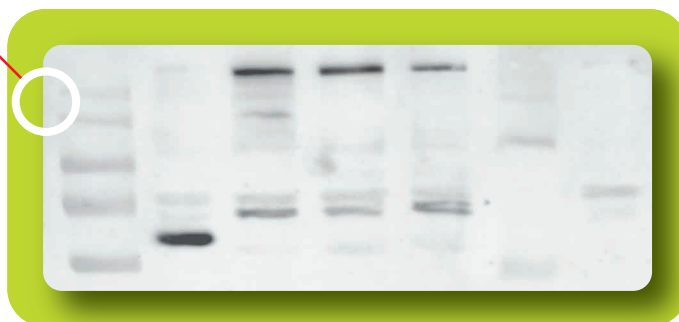
## APPLICATIONS

A Western blot of diluted transferrin was prepared on a PVDF membrane. The membrane was treated with SERVA Light Vega chemiluminescence substrate and imaged using **GeneGnome XRQ** system.

Exposure time of 3 minutes was used.  
Antibodies used: Prim AB anti-transferrin 1:1000  
Sek AB anti-human 1:2000  
0.01 µg/µl, 5 ng/µl, 2 ng/µl;  
0.1 ng/µl; 0.05 ng/µl;  
0.02 ng/µl; 0.01 ng/µl



Simultaneous imaging of your chemiluminescent blot and coloured molecular weight markers. Images are captured separately and then overlaid automatically using GeneSys software



# SPECIFICATION



## GENEGNOME XRQ

SYSTEM	
Image resolution (megapixels)	4
Effective resolution (megapixels)	16
A/D	16 bit
Greyscale	65,536
Quantum Efficiency (@ 425nm)	73%
Lens (motor driven, fixed focus)	F/0.95
Cooling	Peltier
Fixed stage	True lens imaging
Use with external PC and printer (not included)	Yes
LIGHTING	
Epi LED White Lights	Yes
DIMENSIONS	
Max image area (cm)	11 x 8
Min image area (cm)	11 x 8
W x H x D (cm)	37.5 x 44 x 43
Weight (kg)	Approx. 20
Power Input (V)	100-240

More than 75,000 scientists world-wide use Syngene imaging systems to enhance their research. If you want your Westerns to have a happy ending, then contact us or one of our dealers, for more information and a demonstration of the **GeneGnome XRQ** and get away from the drama of using film.

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

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