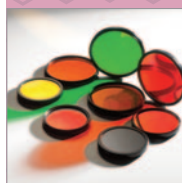
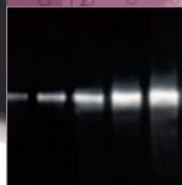
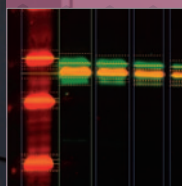


chemiPRO



capture real
results **multi
fluorescence
and chemi-
luminescence
imaging systems**

- CHEMILUMINESCENCE WESTERN BLOTS
- FLUORESCENT GELS OR BLOTS STAINED WITH QDOTS, DYLIGHT, ALEXA FLUOR, CY DYES, AND LI-COR IR DYES
- STAIN-FREE GELS
- BIOLUMINESCENCE
- PLANT IMAGING
- IN VIVO IMAGING
- AGAROSE GELS STAINED WITH ETBR OR 'SAFE' STAINS
- 2D GELS



chemiPRO

Great research comes from accurate Western blot and gel data. With so many ways to image chemiluminescence, fluorescent and visible dyes, you need to know which imaging systems truly capture real results.

At Cleaver Scientific, our experts have many years of experience with image analysis systems. Over this time, we have combined our customer's experience and feed-back with our extensive understanding of the science of imaging, to deliver a high performance system, but with simple automation that anyone in the laboratory can use.

For blot and gel results you can trust today and tomorrow, you can't beat a chemiPRO system.

ACCURATE

Combining a cooled, high resolution camera and unique optical imaging allows chemiPRO to generate true-to-life images, and not just digitally enhanced ones. With chemiPRO it is possible to resolve close chemi and fluorescent bands or spots even on complex gels and know they're real.

SENSITIVE

The chemiPRO systems are multi-application powerhouses for accurately imaging fluorescence, multiplex westerns, agarose DNA gels, visible protein gels, stain-free gels and chemi blots. The system is fully integrated with computer controlled intuitive genePIX software, to allow the impressive 4.80D dynamic range of a chemiPRO to detect femtogram quantities of DNA and proteins time after time.

FAST

Featuring the option to use not just white LEDs but multi-colour, blue, green, red and infra-red HI-LEDs which are up to 200 times brighter than standard LEDs, the chemiPRO range provides fast exposure and brilliant multiplex fluorescence images.

FUTURE-PROOF

With the guarantee of free software upgrades not just today but throughout the system's life, chemiPRO will always have the latest imaging capabilities.

HIGH PERFORMANCE LENS

To generate high quality images, a high performance lens is essential - chemiPRO systems incorporate the best. Using genePIX software, chemiPRO allows easy control over the lens, producing the required results.

HIGH RESOLUTION CAMERAS

Select either a super-high resolution 6 or 9 megapixel camera. Both options give excellent sensitivity over a range of wavelengths to ensure maximum detection of fluorescent and luminescent blots.

SUPER LOW COOLING

Peltier cooling allows exposure times to be increased to detect faint chemiluminescence without adding annoying background noise.

FILTER CHOICE

A 7-position motor-driven filter wheel controlled by genePIX software allows the filter to be added for the preferred fluorescent stain. As imaging ethidium bromide and SYBR® stained DNA gels are common, a UV filter has been included as standard.

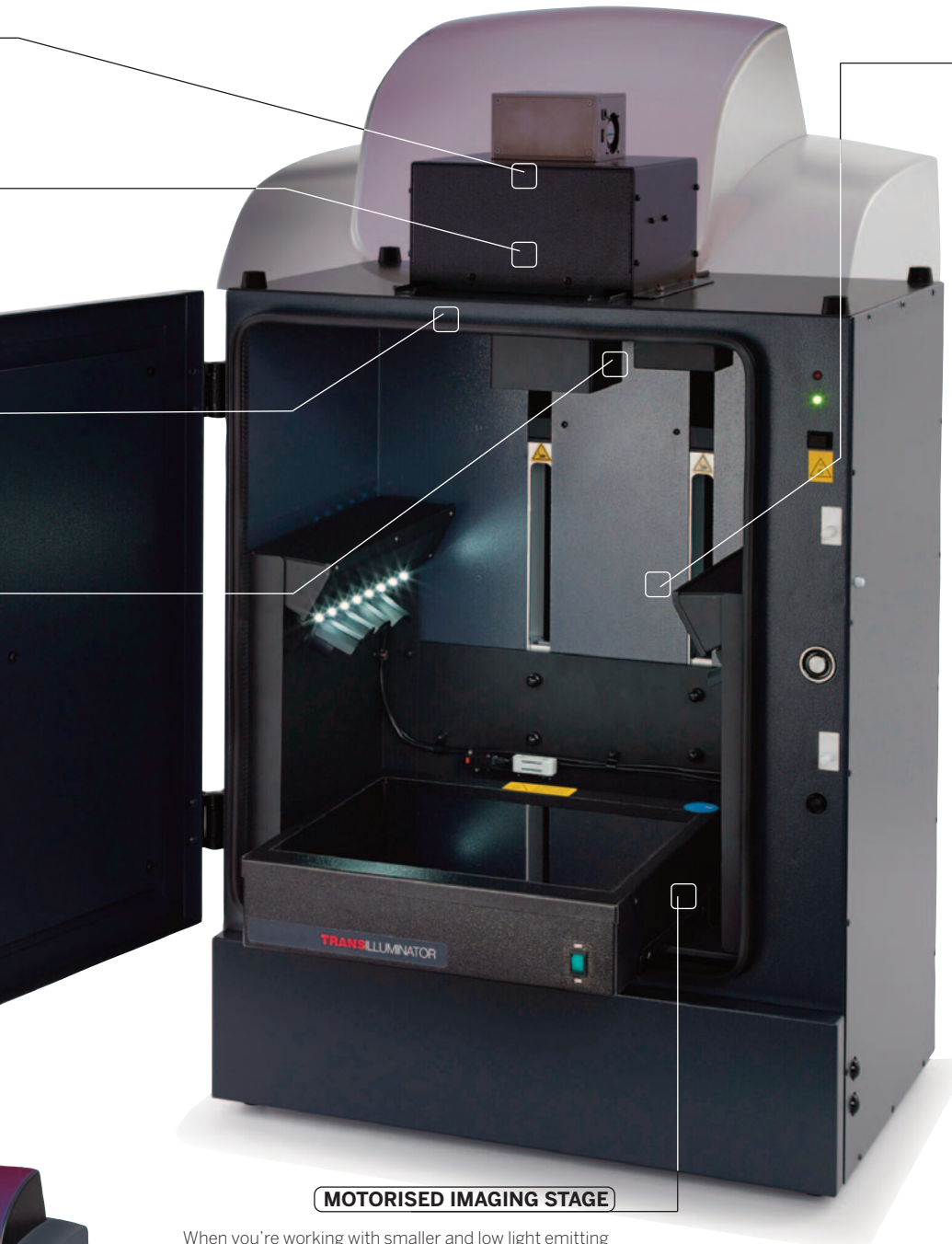
SUPERB SUPPORT

With the exclusive three-year service and support warranty, unlimited copies of genePIX and geneQUANT image analysis software plus free software upgrades, the latest application capabilities will always be available without any hidden extra costs.



chemiPRO XS and XL

RIGHT LIGHTING, RIGHT APPLICATION



WHITE LIGHT

To position samples, see visibly stained blots and coloured markers on Westerns, chemiPRO comes with overhead environmentally-friendly, long-life white LED EPI lighting.

HI-LED EPI LIGHTING OPTIONS

When imaging multiplex fluorescent gels and blots, up to four unique coloured HI-LED (red, blue, green and IR) lights are available. HI-LEDs are up to 200 times brighter than standard LEDs, providing faster exposure times and great images, making chemiPRO an unrivalled, cost-effective alternative to laser-based technology.

UV TRANSILLUMINATOR OPTION

If only ethidium bromide stained DNA gels and stain-free protein gels are needed then the slide in and out, easy access 302nm UV transilluminator is the ideal option. 254nm and 365nm wavelengths are also available.

VISIBLE TRANSMITTED LIGHT OPTIONS

For viewing Coomassie Blue, silver stain and other visible stained gels, a conversion screen is available which can be placed over the UV transilluminator to produce a large, evenly illuminated white light.

BLUE LIGHT CONVERTER SCREEN

If 'safer' fluorescent dyes such as SYBR safe are preferred, the optional blue light conversion screen sits over the UV transilluminator to produce blue light at 460nm.

BLUE LIGHT TRANSILLUMINATOR OPTION

For visualising many fluorescent dyes including ethidium bromide and the safe dyes without using UV, the 470nm UltraBright Blue LED transilluminator is available as an option.

MOTORISED IMAGING STAGE

When you're working with smaller and low light emitting gels and blots, an automatic motor driven stage with automated focus is brilliant because it lets you get your samples closer to the camera, generating true-to-life optical images and not just digitally enhanced copies.

“SIMPLE IMAGING WITH
RESULTS YOU CAN TRUST”

SMART CHEMILUMINESCENCE

When imaging chemiluminescence blots, it is often difficult to get the correct exposure time. Using genePIX, chemiPRO can be set to provide the optimum exposure depending on whether a quick or a high-quality image is required. Since the dynamic range of the chemiPRO is better than X-ray film, more accurate quantifiable data will also be created. Images of visible protein markers can even be captured and, using genePIX, these can be overlaid on a chemiluminescent image to make molecular weight calculations easier.

Figure 2 -
Chemiluminescence
Western blot



SDS PAGE: SERVAGel TG PRIME 8%
 Blotting: Xpress PVDF Blotting-Kit Transferrin diluted 2-fold
 (5.0ng – 4.8pg)
 1st AB a-human-Transferrin, 2nd AB a-rabbit-IgG-HRP
 SERVALight Polaris CL HRP WB Substrate.
 The image was captured on a chemiPRO

chemiPRO

XS and XL

LOAD AND GO IMAGING



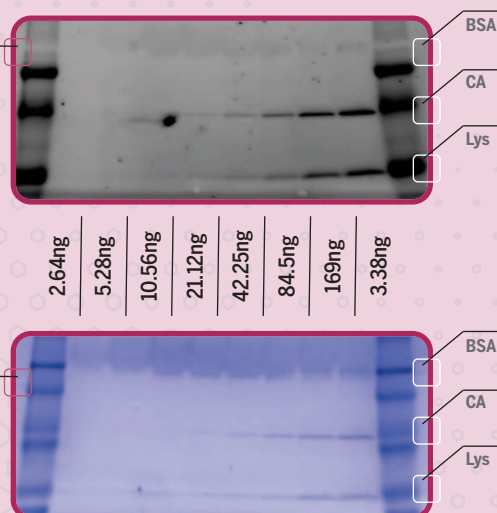
TECHNICAL SPECIFICATION

SYSTEM	CHEMIPRO XS	CHEMIPRO XL
IMAGE RESOLUTION (MEGAPIXELS)	6 OR 9	6 OR 9
EFFECTIVE RESOLUTION (MEGAPIXELS)	18 OR 27	18 OR 27
IMAGE SENSOR	CCD	CCD
A/D	16 BIT	16 BIT
GREYSCALE	65,536	65,536
DYNAMIC RANGE OD	4.8	4.8
QUANTUM EFFICIENCY (@ 425NM)	73%	73%
COOLING	-57°C, PELTIER	-57°C, PELTIER
LENS (MOTOR DRIVEN AUTO FOCUS)	F0.95	F0.8
STAGE	MOVING	MOVING
FILTER WHEEL (7-POSITION MOTOR DRIVEN)	ALL FLUORESCENCE APPLICATIONS	ALL FLUORESCENCE APPLICATIONS
UV FILTER	YES	YES
DARKROOM		
EXTENDED WITH MOTOR DRIVEN STAGE	YES	YES
LIGHTING		
EPI LED WHITE LIGHTS	YES	YES
HI-LED (RED, BLUE, GREEN)	OPTIONAL	OPTIONAL
HI-LED (RED, INFRARED)	OPTIONAL	OPTIONAL
HI-LED (RED, BLUE, GREEN, INFRARED)	OPTIONAL	OPTIONAL
VISIBLE LIGHT CONVERTER	OPTIONAL	OPTIONAL
WHITE LIGHT PAD FOR VISIBLE STAINS (20 x 14CM)	NA	OPTIONAL
BLUE CONVERTER SCREEN	OPTIONAL	OPTIONAL
SLIDE-OUT UV TRANSILLUMINATOR 254, 302, 36NM, (20CM x 20CM)	OPTIONAL	OPTIONAL
EDGE LIGHTING UNIT	NA	OPTIONAL
DIMENSIONS		
MAX IMAGE AREA (CM)	15 x 12	34.5 x 27.6
MIN IMAGE AREA (CM)	10 x 8	15.6 x 12.5
W x H x D (CM)	40 x 64 x 52	57 x 99 x 55
WEIGHT (KG)	APPROX. 40	APPROX. 45
POWER INPUT (V)	100-240	100-240

SIMPLE STAIN-FREE IMAGING

chemiPRO is supplied with pre-set stain-free imaging protocol in the genePIX software so that perfect, accurate images of protein gels can be captured without the hassle of staining and de-staining using dyes such as Coomassie Blue.

Figure 3 -
Stain-free gel
compared to
ProtoBlue
safe stained
protein gel



Serial dilutions (338-2.64ng) of a protein mixture (BSA, Carbonic anhydrase and Lysozyme) were run on a Criterion 4-20% TGX Stain-Free gel and imaged with UV on a chemiPRO system and additionally stained with ProtoBlue Safe stain. The linearity and sensitivity of the stain-free method is comparable to the ProtoBlue Safe stain method.

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