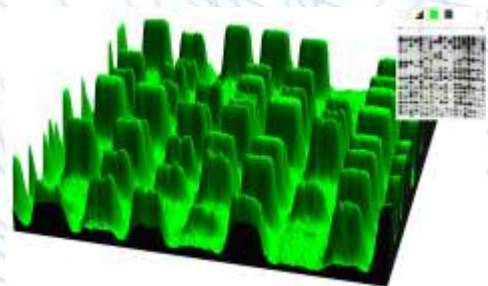
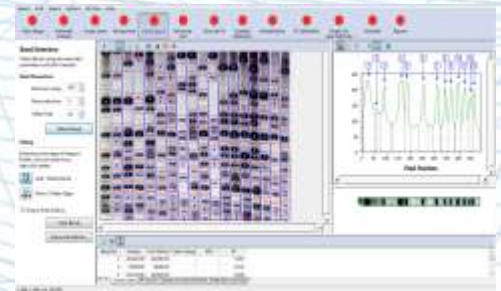
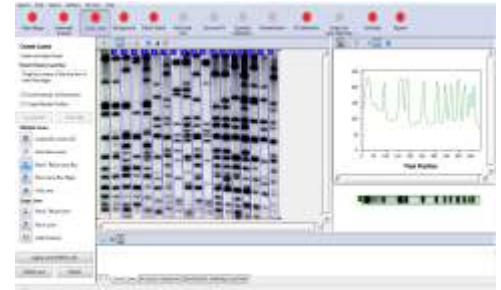


Gel.ProKEMI

Chemiluminescence Imager
easy + accurate + affordable



Gel.ProKEMI ... superb 16-bit sensitivity

An easy-to-use, versatile Chemi documentation + Analysis system with automated software for 1D electrophoresis gel image and Western Blot analysis. Get rapid, accurate, reproducible results from your 1D gels...

Designed & developed in technical collaboration with Viewpoint Labs, USA



Sharp zoom lens coupled to a highly sensitive peltier-cooled 16-bit Sony scientific grade CCD camera, the Gel.ProKEMI gel documentation system, is a high quality, professional densitometric bio-imaging system. From chemiluminescence, agarose, PAGE, colorimetric to fluorescent imaging; this gel system has all the options.

Featuring high resolution extremely sensitive scientific grade CCD camera super-cooled to delta -60C (choice of 1.44 and 4.1 megapixel cameras extendable to 12.0 MP with options for single, double and triple peltier attachments for temperatures upto delta -15C, -30C & -60C from ambient) with extremely low noise and dynamic flat field calibration coupled to a motorized zoom lens mounted inside an enclosure that covers and protects the camera and lens. The camera, lens and cabinet connects to and can be controlled from the PC using the acquisition capture software. The acquisition software provides an option for dynamic integration. The images taken at different intervals or settings can be integrated for a digital video playback. The light-tight cabinet has a UV safety sensor and a roll-out slider transilluminator.

Choice of illumination options with UV trans/epi lighting, wavelength-specific LEDs and more, add to the versatility of the system. UV transillumination can be provided in dual 302-312nm and 365nm (additionally 254nm), LEDs ranges. Large filter size of transilluminator for gel images up to 21x26cm. Colorimetric samples up to 30 x 28 cm can be captured. Epi-white light illumination is standard. Optionally, ultraviolet epi-illumination in a variety of wavelengths can also be provided. UV to white light and UV to blue light converter screens are also available.

The dark room cabinet has features for safety switch that switches off the UV lights as soon as the door is opened. A timer is provided to switch off UV in case the user forgets to shut it off.



FEATURES

- Scientific Sony CCD imaging sensor
- Super cooled 16-bit camera
- 1.4, 4 megapixel cameras
- Excellent dynamic range
- 3.5 orders of magnitude, 63 dB
- Superior signal-to-noise
- Anti-reflective, microlens sensor
- Zoom lens, manual/motorized
- Exposure from 0.01s onwards
- Dual 302-312nm/365nm/254nm UV
- RGB LEDs and convertor screens
- Operate camera via PC
- Timer for auto-off of UV
- Advanced Gel Analysis Software

OPTIONS

- Touch PC with software
- Chemiluminescence upgradation
- Extreme low light F/0.95 lens
- Options of F1.2, 12.5-75mm or 8-48mm lens.
- 2D Gel Proteomics Analysis Software



ADVANTAGES

- Easy to use, safe dark-room
- Low cost, yet high quality images
- Control camera from PC
- Focus, clicking, exposure from PC
- Camera mounted conveniently
- Easy access to transilluminator
- Small foot print requires less space
- Superb performance/price

APPLICATION FILTERS

- Orange 590: Ethidium Bromide (EtBr), SYPRO Ruby, ProQ Diamond, Deep Purple, etc
- Green 520: SYBR Green I, Green II, SYBR Gold, GFP, Fluorescein, FITC
- Orange 560: SYBR Safe, Rhodamine, Cy3, etc
- Red 630: SYPRO Red, Texas Red, etc
- Blue 480: Hoechst, Coumarin, etc
- Clear: Coomassie Blue, Silver etc

Gel Analysis Software

Camera and Lens Control with Gel Image Capture Acquisition Software

Gel image acquisition and control software has full function control panel which allows user to adjust camera, lens settings like exposure time settings, motorized zoom, focus and aperture (iris). Histogram display on the screen shows image saturation and indicates over-saturation/exposure. Application protocols can be saved with specific controls for light source, camera settings, exposures, filters etc. Furthermore, analysis and report generation protocols can also be created and saved for specific application protocols and stains. Contrast and brightness can be adjusted.

Workflows to suit your analysis requirements

Gel analysis is rapid, automated to a high level and 100% reproducible and repeatable. The user has the ability to review each stage of the workflow analysis and intervene / edit if required. Combining high levels of automation with final user review allows rapid and accurate quantitative analysis. The user then has full control of the visualisation tools and data display - outputting only those data fields that are of importance as well as the images of choice. Thus results are completely reproducible and repeatable.

Fast Accurate Quantitation and Reporting

Advanced colorimetry and densitometry software for 1D gels, highly developed algorithms accurately detect lanes and bands even on distorted gel images. Results can be verified using the range of visualisation tools which aid further examination of lane and band data. Calibrate the bands using one or more Molecular Size standard lanes and derive accurate quantitation from known band volumes. Analysis and data can be exported as Excel files and pdf files. Image files can be saved and exported in jpg, png, tiff and bmp formats. Also provided is a 3D viewer for viewing bands in 3D.

Colony Counting, 2D Densitometry, Array & Dot Blot Analysis, General Image Analysis Toolbox - Optional Modules

Define circular or rectangular area of interest. Easy control slider bars for sensitivity and operator size. Advanced parameter settings for sensitivity, noise, operator size and background. Total count and spot data automatically displayed. Wide range of data fields to display in measurements table. Edit, draw, erase, delete or split features.

GENERAL

- Fully automatic, single button press complete image analysis within area of interest
- Edit and enhance image for improving analysis
- Brightness, contrast, annotate, illustrate images
- Instant access to refinement of analysis step
- Alternative step-wise image analysis
- Facility to load and save user preferences, including parameters and display options, prior to analysis
- Automatic PDF report generator
- Ruler options to display lane names, numbers and Mws
- Multiple copies of the program can now be run at the same time to better compare results
- Rf and IEF propagation distance calculation

BACKGROUND SUBTRACTION

- Automatic methods:
 - Rolling ball, Rubber band,
 - Minimum profile,
 - Valley to valley,
 - Lane edge subtract
- Manual methods

BAND DETECTION

- Fully automatic band detection
- Adjustable peak parameters:
 - Minimum peak
 - Noise reduction
 - % max peak of lane or gel
 - Band edge detection methods:
 - Single edge
 - Automatic detection
 - Fixed width
 - Volume and Intensity of bands displayed
 - Manual editing of peak and edge detection in image and lane profile windows
 - Snap to peak editing
 - Automatic band measurements
 - View band measurements in measurements table
 - Wide range of data fields to display in measurements table
 - Histograms for viewing band data
 - View multiple lane profiles stacked/overlaid
 - Export lane profile information
 - Edit Band Name and display on Image
 - Automatic Dendrogram creation
 - New noise reduction option for band detection removes dust from image
 - Median filter

LANE CREATION

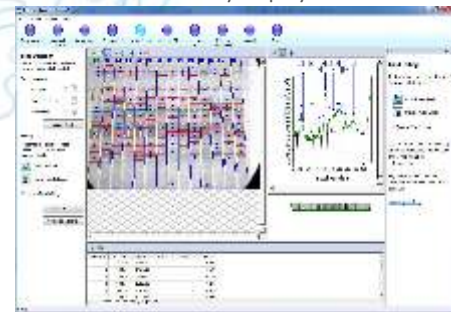
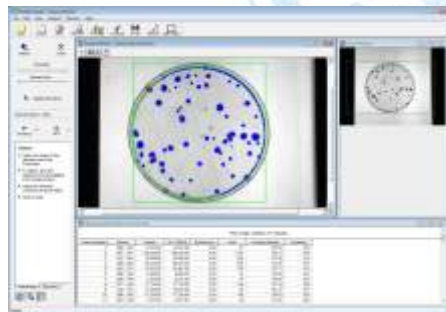
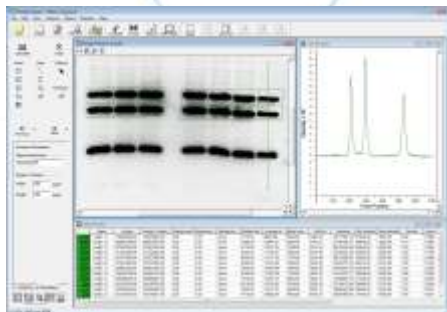
- Automatic lane detection
- Export and import of lane templates
- Manual lane detection
- Multi-tier analysis
- Move, resize and bend multi-box
- Move, resize, bend individual lanes
- Add grimaces to account for band distortion
- Delete lanes

PROFILE DECONVOLUTION

- Fit Gaussian curves to profile
- One Gaussian per band
- Manual adjustments of Gaussian
- FWHM (Full Width Half Max) measurement of bands

MOLECULAR WEIGHT/ pI CALIBRATION

- Calibrate and detect Molecular Weights of 1D gels
- Library of standards, Add and Edit existing
- Automatic assignment of standard bands
- Propagation by Rf between standards
- 6 curve fitting methods
- Molecular Weights automatically displayed
- pI standards can increased or decreased
- Volume and Intensity displayed



	Gel.TOUCH	Gel.ProCCD412	Gel.ProCCD516	Gel.ProKEMI
CAMERA				
Effective Pixels	12 megapixels	4.1 megapixels	5 megapixels	4.1 megapixels
Bit Depth / Grayscale	8-bit Gray / 256	12-bit Gray / 4096	16-bit Gray / 65536	16-bit Gray / 65536
Pixel size	-	4.65 um x 4.65 um	4.65 um x 4.65 um	6.45 um x 6.45 um
Cooling	Ambient	Ambient	Ambient	Cooled
Dynamic Range	>3.0 OD, 58 dB	>3.5, 63 dB	>4.0, 68 dB	>4.8, 68 dB
LENS				
Zoom	18-55 mm, 3x	8-48 mm, 6x	8-48 mm, 6x	17mm / 25mm / 50mm
Aperture	F3.5	F1.2	F1.2	F0.95 / F1.2
Operation	Manual	Motorized	Motorized	Motorized
Filter Holder	Single	Single / Triple / 7-filter	Single / Triple / 7-filter	Single / Triple / 7-filter
Filters (+1 Diopter)	Orange 590, EtBr	Red/Green/Orange/Upgrade	Red/Green/Orange/Upgrade	Red/Green/Orange/Upgrade
ILLUMINATION				
UV Transillumination Size cm	20 x 20 cm or 21 x 26 cm	21 x 26 cm	21 x 26 cm	21 x 26
Epi-Transillumination White	Optional	Optional	Optional	Optional
Epi-illumination Image Size	35 x 30 cm	30 x 28 cm	30 x 28 cm	30 x 28 cm
Sample Size	40 x 30 cm	30 x 28 cm	30 x 28 cm	30 x 28 cm
UV Trans Wavelength	254nm, 302nm, 365nm	254nm, 302nm, 365nm	254nm, 302nm, 365nm	254nm, 302nm, 365nm
Overhead Epi-White	Yes	Yes	Yes	Yes
Overhead Epi-UV	Optional	Optional	Optional	Optional
Optional Red/Green/Blue Epi-LEDs	Optional	Optional	Optional	Optional
CABINET				
Touch Screen	8", TFT LCD	Optional	Optional	Optional
Darkroom Cabinet	Yes	Yes	Yes	Yes
UV Safety Interlock Switch	Yes	Yes	Yes	Yes
Timer for UV light	Yes	Yes	Yes	Yes
Connectivity	USB, Wifi Network	USB	USB, Firewire, GigE	USB, Firewire, GigE
SOFTWARE + COMPUTER				
Gel Acquisition Software	Yes	Yes	Yes	Yes
1D Gel Analysis Software	Yes	Yes	Yes	Yes
Colony & Array Analysis	Yes	Optional	Optional	Yes
2D Gel Analysis Software	Optional	Optional	Optional	Optional
Computer	Windows + Intel	Windows + Intel	Windows + Intel	Windows + Intel
MISCELLANEOUS				
Voltage	220-240VAC, 50/60 Hz	110/220VAC, 50/60 Hz	110/220VAC, 50/60 Hz	110/220VAC, 50/60 Hz

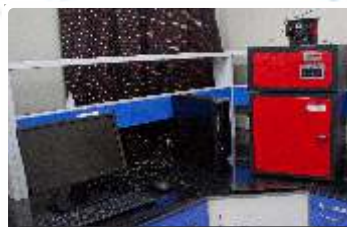
Installations of Gel Docs Across India



Indian Institute of Technology
Guwahati | Assam



CromDx Molecular Diagnostics Pvt Ltd
Noida | NCR Delhi



Indian Institute of Science Education & Research
Thiruvananthapuram | Kerala



HLA Lab, Max Super Speciality Hospital
Saket | Delhi