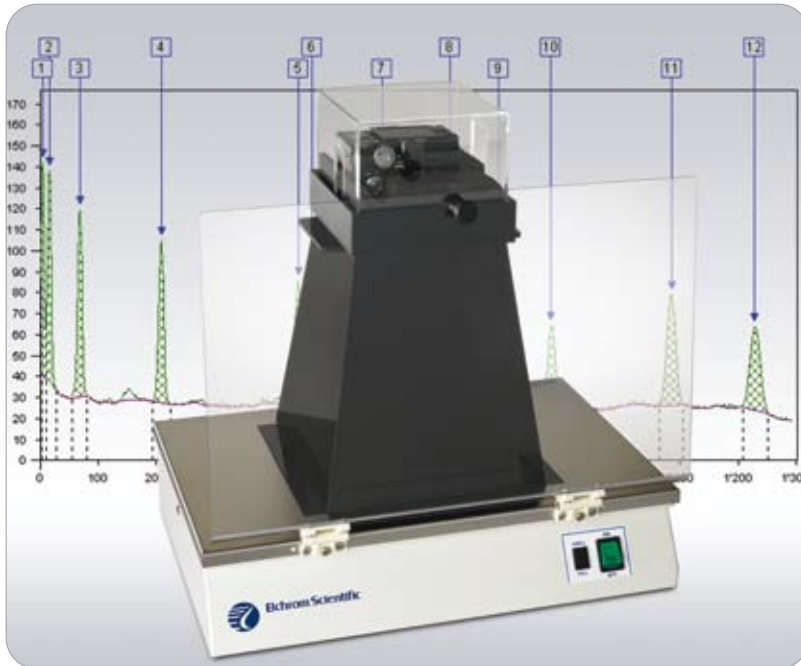


## Elchrom Scientific Q-EL™ 330 Digital Recording and Analysis System



The fastest & most accurate gel recording and **1D gel analysis program.**

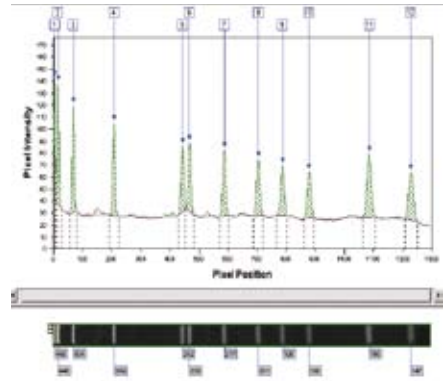
Elchrom Scientific **Q-EL™ 330** Digital Recording and Analysis System allows for fast and most accurate 1D gel analysis with most user friendly gel analysis program

- **Quick** - gel recording and analysis within minutes
- **User friendly** - it only takes one mouseclick to record a gel photo
- **Accurate** - excellent digital image processing capabilities and quantitative 1D gel analysis with high quality
- **Upgradable** - more sophisticated applications and data analysis are covered by upgraded software version

## Q-EL™ 330 Digital Recording and Analysis System

Elchrom Scientific Q-EL™ 330 Quantitative Electrophoresis™  
Digital Recording and Analysis System, allows for

- Gel recording
- Gel analysis:
  - Accurate size determination
  - Precise Quantification
  - Normalisation
  - Separate lane report for each sample
  - Data Analysis
  - Export of data to Microsoft Excel



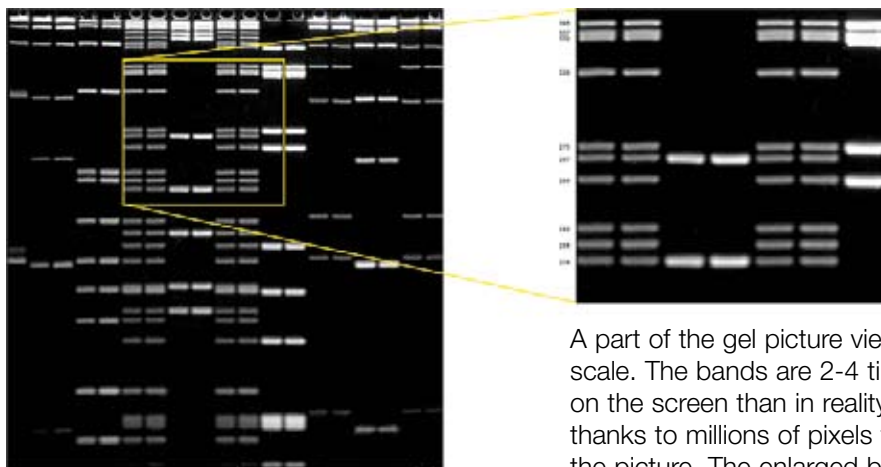
## Components

**The system consists of:**

- 12 megapixel digital camera with accessories
- Hood 20x20 cm with filter holder
- Filters for Ethidium Bromide and SYBR stained gels
- Picture capture and conversion software
- Gel analysis software\*

The hood with digital camera is moveable, allowing the use of the same transilluminator for viewing the gels and photography with instant film camera.

## High Resolution Digital Camera



Gel picture viewed at 33% scale  
(Spreadex EL 600 S-2x25 gel)

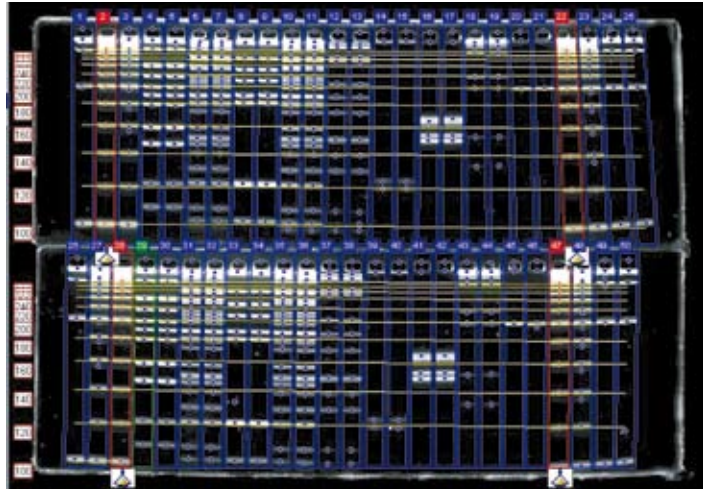
A part of the gel picture viewed at full scale. The bands are 2-4 times larger on the screen than in reality on the gel, thanks to millions of pixels that make the picture. The enlarged bands are crisp and fine details become visible (337 and 332 bp bands resolved after migrating 1cm).

## Advanced Software - Analysis of Multi-Tier Gels

The advanced gel analysis software automatically detects lanes on multi-tier gels

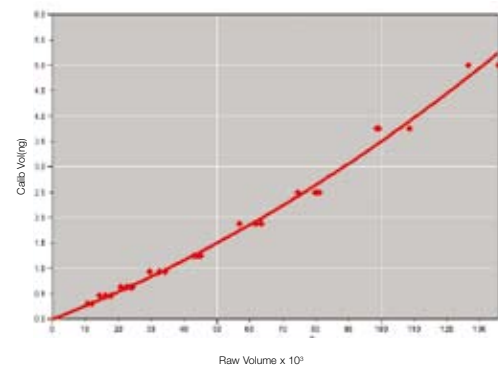
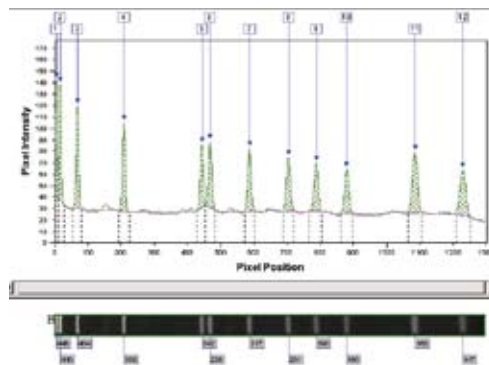
The size calibration is done using a standard curve constructed with a marker run in one or several lanes.

The software automatically calculates DNA fragment size and quantity of each band.



## Superior Quantification

The baseline separation and the straight bands with corresponding symmetric peaks of Gaussian profile are the result of optimized gels and electrophoresis conditions. The software automatically subtracts the background and calculates the pixel volume of each band. A serial dilution of DNA fragments of known concentration is used for construction of the standard curve for DNA quantification.

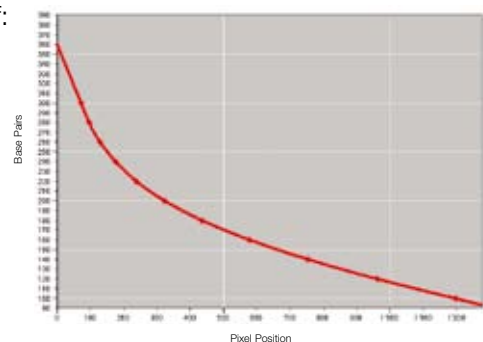


## Sizing Accuracy of 1 bp

The gel analysis software automatically calculated the length of the DNA fragments using a standard curve constructed with a DNA size marker from the gel photo. Sizing accuracy of 1 bp is achieved with almost all fragments.

The extraordinary sizing accuracy is a result of:

- High resolving power of Spreadex gels (3-fold better than polyacrylamide)
- Elimination of sequence-dependent mobilities on Spreadex gels run at 55°C
- Absence of „smiling“
- High resolution of the digital camera
- Advanced gel analysis software



## Q-EL™ 330 Digital Recording and Analysis System

### Digital Camera

- 12 million pixels
- Auto-focus
- 8-bit colour
- 3x optical zoom
- Macro
- USB port
- Remote capture (pictures are taken from PC)
- Flash card 16 MB
- Power supply
- The camera can be used also for general purpose photographing

### Gel Analysis Software

- Analysis of multi-tier gels
- Automatic lane detection
- Background subtraction
- Band detection
- Size calibration
- Quantity calibration
- Normalization
- Lane report for each individual sample
- Report table can show data on 11 parameters including: Rf, coordinates, peak area, band and lane percentage etc.

\* The gel analysis software is custom manufactured for Elchrom by Nonlinear Dynamics

## Equipment not included in the system

- UV Transilluminator (254nm/312 nm recommended)
- Computer having USB port for connecting the camera with at least 400 MHz and 64 MB RAM;

Elchrom associated gel electrophoresis products

	P/N
• ORIGINS by Elchrom Scientific™	2100
• SEA 2000 Electrophoresis Basic System	2061
• UV transilluminator	2038
• Easy staining gel tray	2344
• M3 DNA size marker	3203
• M1 DNA size marker	3204
• Precast gels	

P/N	Product
2051	Q-EL™ 330 Digital Gel Imaging and Analysis System; including: 12 megapixel digital camera, Hood with EtBr and SYBR filter, Camera software, Image capture software and 1-D Gel analysis software
2051-RED	Digital Camera, Camera software, Hood, Filters for EtBr and SYBR stained gels, Foam pads, Plastic foil
2051-AS	1D-Gel Analysis Software

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