

New GeNei™ Xplorer Image Analysis System

Description: An introduction to Gel Documentation Electrophoresis is an extremely common technique in molecular biology, used routinely to analyse DNA preparations in order to check quantity, size, structure and constitution of prepared samples. After separation on a gel (usually agarose), DNA is normally visualised under UV light after treatment with a fluorescent stain such as ethidium bromide. Electrophoresis is also used to study similar properties in protein samples though in this case, visualisation is normally under visible light after treatment with visible stains such as Coomassie or silver.

Whatever the sample or method of visualisation, it is often required or at least desirable to keep a record of the analysis for future reference and/or analysis. This can be achieved with instant photography to produce a "hard copy" print of the illuminated gel and its visible bands.

Unlike with instant photography, a live video preview of the gel image can be seen prior to image "capture". The captured image can be saved as a computer file, which can be easily archived, printed when necessary and analysed, using suitable software.

In these days of routine, high throughput, analysis of DNA in particular, both of the above are enormously important to the efficiency of many research and analytical laboratories. The design of a gel documentation system should reflect not only the type of user and application, but also the number of users and the environment in which it is situated

GeNei™ Xplorer gel documentation systems

The **GeNei™ Xplorer** is a 1.4 mega pixels gel documentation system ideal for documentation, publication and quantification. The very high resolution provides more quantification data as the image contains more details. The **GeNei™ Xplorer** is a native 14-bit system, as compared with 12-bit competitor systems. The dynamic range describes the ratio between the maximum and minimum measurable light intensities. Light measurements are translated into digital values with precision measured by the bit depth. The **GeNei™ Xplorer** extended dynamic range provides for more quantification data.

Specification:

- Scientific grade camera with electronically variable shutter speed and motorised zoom lens options;
- The CCD camera in the instrument is well protected, which ensures that camera damage is practically impossible.
- Superb quality camera filter optimized for ethidium bromide
- 4-position filter slide
- 1.4 Megapixels;
- Super-high sensitivity;
- 14-bit performance (16,384 grey levels);
- 6 X optical zoom; dynamic range 4.0 OD;
- Pixel size 7.4 x 7.4 microns;
- FireWire super-fast connection
- By using a separate white light source in this system, the UV lamp is not consumed during the process of acquiring protein gel photos.
- Ideal for documentation, quantification & publication
- Built-in roll-out transilluminator
- 3 image analysis modules:
 - 1D Molecular weight (MW, volume, intensity)
 - Colony counting
 - Distance calculation (RF, IEF)

Applications:

- 1D nucleic acid;
- 1D protein gel;
- Microtitration plate or array;
- Multiplexing samples;
- Plant and bioluminescent samples;
- Petri dish imaging;
- Flash imaging.