invitrogen

E-Gel Imager

gel documentation system

The E-Gel Imager System makes agarose gel documentation and analysis simple

Now you can get the power and features of a larger and more complex gel imaging system combined with the sleek footprint and affordability of a benchtop device.

- **Affordable**—superior imaging system available with a scientific-grade camera at an affordable price
- **Space-saving**—fits on most benchtops, light enough to be moved easily
- **Easy to use**—simple setup and intuitive software for analysis of Invitrogen™ E-Gel™ gels and other agarose gels
- **Quality images**—capture sharp, rich images, even during a run, that can be analyzed using powerful Invitrogen™ E-Gel™ GelQuant™ Express Analysis Software

Three Invitrogen™ E-Gel™ Imager bases to choose from.

A flexible system to meet your workflow needs

The Invitrogen™ E-Gel™ Imager System is the perfect solution for documenting nucleic acid gels. Each E-Gel Imager System includes a camera hood and interchangeable base. Bases can also be purchased separately. Choose from these three base options:

- **UV transilluminator**—best for traditional ethidium bromide–stained gels
- **Blue-light transilluminator**—excites Invitrogen™ SYBR™ stains such as SYBR Safe, SYBR Gold, and SYBR Green stains
- **E-Gel™ Adaptor Base**—allows real-time gel documentation with compatible Invitrogen™ E-Gel™ iBase™ and Safe Imager™ Real-Time Transilluminator

Every Invitrogen™ E-Gel™ Imager camera hood comes with a preinstalled orange (universal) filter. Users may remove the orange filter and replace with either a green or red filter, depending on the stain used.

Easy-to-use software

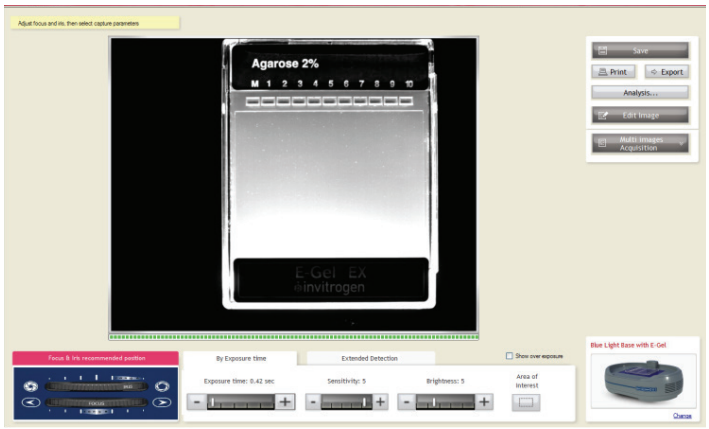
GelQuant Express Analysis Software is a Windows™ application for the analysis of 1D gels. This easy-to-use, high-precision software enables accurate, consistent, and fast analysis of all gel images.

- **Easy and fast quantitation:** automatic detection and analysis of bands with just one click. Band boundaries are automatically and accurately detected using an innovative boundary detection algorithm. Even distorted gel images can be analyzed, and molecular weight calculated, based on marker lane standards.
- **Accurate analysis:** automatic deduction of background noise allows accurate quantitation and normalization of bands
- **Flexible analysis tools:** dynamic graphic intensity analysis tools allow easy adjustment to band and lane boundaries for complex results (e.g., degraded, doublet bands)
- **One-click data export:** customize results with one-click export to an Excel™ worksheet or as a JPEG image

Do a quick check or more in-depth analysis

It's easy to quickly capture an image any time you run a gel. For many applications, estimating the size and quantity of nucleic acid in a certain band in a gel is important for downstream steps. The GelQuant Express Software was designed for just this type of image analysis after capture. Use this full-featured yet uncomplicated software to document, quantitate, and analyze your results.

GelQuant Express Analysis Software simplifies 1D gel analysis



Preview your image and adjust brightness, sensitivity, and exposure time on the main imaging screen. In this example, an E-Gel EX 2% gel is being imaged using blue-light transillumination.

The Edit Image screen is where post-capture manipulations can be performed.

E-Gel Imager System and Software FAQs

E-Gel Imager System

What components come with my system?
There are three full-system options to choose from:

- E-Gel Imager System with UV light base (Cat. No. 4466611)
- E-Gel Imager System with blue-light base (Cat. No. 4466612)
- E-Gel Imager System with E-Gel Adaptor Base (Cat. No. 4466613)

Each of these systems comes with the E-Gel Imager camera hood, camera hood power supply cable, USB 2.0 cable for camera hood, base with power cord (UV or blue-light base) or DC connector cable (adaptor base), the Invitrogen™ E-Gel™ Universal Filter, two CDs that include the Invitrogen™ E-Gel™ Imager Software package (GelCapture™ Acquisition Software and GelQuant Express Analysis Software), one GelQuant™ Express software activation USB dongle, and a quick reference card.

Does this system only work with Invitrogen™ E-Gel™ precast agarose gels?
No. This system is not only appropriate for imaging nucleic acid separation in E-Gel precast agarose gels, it's also a perfect solution for documenting and analyzing nucleic acids in other gels, such as Novex™ TBE gels and pour-your-own gels (agarose or polyacrylamide).

Can I get other bases separately?
Yes, the UV light base, blue-light base, and adaptor base can be ordered separately.

Can the UV light base be used for both ethidium bromide–stained and SYBR dye–stained gels?
Yes, when using both ethidium bromide–stained and SYBR dye–stained gels, we recommend using the UV light base with the universal (orange) filter for the ethidium bromide–stained gels and the green filter for the SYBR dye–stained gels. Use of the blue-light base for ethidium bromide–stained gels is not recommended, as the fluorescence signal emitted from the ethidium bromide–stained bands using a blue-light base is a tenth of the signal obtained with the UV light base.

E-Gel Imager software

What are the two software programs that are used with the E-Gel Imager System?
GelCapture Acquisition Software is used for the visualization and documentation of nucleic acid gels. GelQuant Express Analysis Software is used for quantification analysis of nucleic acid gels.

What adjustments can be made to the image using the GelCapture Software?
Exposure, sensitivity, and brightness can be adjusted using the GelCapture Software. Captured images can then be exported to the GelQuant Express Software for data analysis.

What are the two main analysis options for the GelQuant Express Analysis Software?
The 1D option is used for analyzing 1D gels, such as determining molecular weight. The express option is designed for analysis of nucleic acids and protein gel images. In the express mode, lane profiles are analyzed with the flexible adjustment of background values. Separate bands can be quantified as one entity for easier analysis of complex results (e.g., degraded or smeared bands).

Specifications	
Dimensions (W x D x H)	Hood: 20.3 x 28.4 x 36.5 cm
	Base: 21.4 x 30.4 x 11.9 cm
Viewing dimensions (W x D)	12 x 15 cm
Excitation light source	UV light: 312 nm
	Blue light: 470 nm
Power	110 or 220 VAC; 50/60 Hz
Camera	
Type	CCD
Gradation	12-bit
Resolution	1,296 (H) x 964 (V); 1.3 megapixels
Dynamic range	56.77 DB
Exposure time	0.01 milliseconds to 10 seconds
Optics	
Super-bright lens	F/1.4 improved lens
	Optical zoom 6–12 mm
Field of view	11 x 14 cm
Emission filter	Orange filter (ethidium bromide and SYBR Safe DNA gel stain)
	Green filter (fluorescein, SYBR Gold stain, SYBR Green stain)
	Red filter (Qdot 625)
Software	
Image capture	GelCapture Acquisition Software
1D image analysis	GelQuant Express Analysis Software
System requirements	
Operating system	Windows XP Professional (English version, SP3, 32-bit), Windows 7 Professional (English version, 32-bit), or Windows 8.1
Processor	Intel Core 2 Duo, 1.8 GHz
Memory	Minimum 4 GB RAM

Ordering information

Product	Cat. No.
E-Gel Imager System with UV Light Base	4466611
E-Gel Imager System with Blue Light Base	4466612
E-Gel Imager System with E-Gel Adaptor Base	4466613
E-Gel Imager UV Light Base	4466602
E-Gel Imager Blue Light Base	4466603
E-Gel Imager Adaptor Base	4466604
E-Gel Imager Universal Filter	4466606
E-Gel Imager Qdot 625 Filter	4466607
E-Gel Imager UV/SYBR filter	4466608
E-Gel Imager Quantitation USB Dongle	4466610
E-Gel Imager Band Excision Kit	4466605
White Light Conversion Screen	4473061