

The ultimate system for bioluminescence imaging

AB-3000B Cellgraph



Applicable to long-term measurements
and multicolor luminescence
measurement

Cellgraph AB-3000B is an imaging system developed to detect low-level light emission in a single living cell using a highly sensitive EM-CCD camera.

The detection of low-level light emission has been achieved by employing an optical system with high condensing efficiency and a cooled EM-CCD camera with the highest level of absolute sensitivity. By using a temperature and CO₂ gas concentration control system and a humidifying unit, the atmosphere inside the sample holding chamber is the same as that of inside CO₂ incubators. This incubation system enables long-term observation of cultured cells and tissue slices in the living state. The Cellgraph system also includes a color separation mechanism with built-in optical filters, enabling multicolor reporter gene assay using multiple luciferases. The Cellgraph is an ideal imaging system to observe faint bioluminescence emitted by cells and tissue for an extended period of time while keeping them alive.

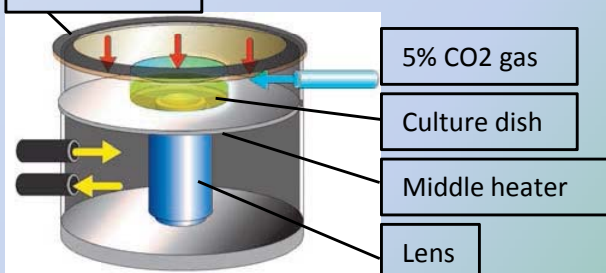


The Cellgraph system employs a **4x magnification objective lens** with NA = 0.53 (with conventional 4x objective lenses; NA = 0.1 to 0.2), which provides bright images at low magnification. For higher magnification, the Cellgraph system offers 10x, 20x, 40x and 60x objective lenses with large NA values.

An **ultra-sensitive cooled and back-illuminated CCD** that achieves absolute sensitivity of single photon/count (at 535 nm) is mounted. The absolute sensitivity is calibrated by an unique method using a laser light source.



Glass heater



5% CO₂ gas

Culture dish

Middle heater

Lens

Cell-friendly incubation function

The Cellgraph system has the same incubation function as commonly used CO₂ incubators in the laboratory for cell culture. The system stably provides an atmosphere (controlled temperature, CO₂ gas concentration and humidifying) that is suitable for the long-term observation of living cells or tissues.

CellGraph Viewer, simple and easy to use analysis software

Bioluminescence can be measured individually in any given region of interest; for example, each cell in the area. You can select regions simply by clicking on the image. The intensity of the bioluminescence in the selected area will be quantified, and its corresponding graph will be plotted automatically. The result of analyzed bioluminescence intensity data can be exported as CSV format files. There are four outline tools: circles, rectangles, polygons and spline (encircled by a curved line).

An entire sequence or a specified sequence of time-lapse images can be saved as a movie in AVI. format. Images can be superimposed, and the outline of an area can be reflected.

Price: 110 000 Euro / 149 270 USD / 92 840 GBP; Product code: 3600000

Real-time Gene Expression Measurement in Living Cells

AB-2550 Kronos Dio



AB-2550 Kronos Dio is a luminescence measurement device (luminometer) that equips a photomultiplier tube as a detector. This device is suitable to monitor gene expression of culture cells and cultured tissue slice at fixed intervals over a period of several hours to several days using 35mm diameter culture dish as a sample container.

For the long term cultures, it is possible not only to control temperature in the cabinet by the air circulation but also to introduce CO₂. Additionally, because an optical filter is built in, it is possible to monitor up to three kinds of gene expression using luciferase with different colors of luminescence.

Price: 29 500 Euro / 35 000 USD / 25 000 GBP; Product code: 3510122

AB-2350 Phelios



AB-2350 Phelios is a **microplate luminometer** to measure multiple samples with high efficiency of light detection. Phelios is available to measure diverse wavelength of bioluminescence from 400 to 670nm in 96 - 384 well microplate. It achieves high sensitivity with added and extremely desired optical system for efficiency of bioluminescent detection in low noise photo counting. Besides, it accomplishes high reproducible measurement by internal temperature controller and accurate pump in repeated injection. Moreover, even in case of different multi-colors generation, it is available to measure the samples respectively by dedicated automatic filtering function.

Price: 20 139 Euro / 27 328 USD / 16 997 GBP; Product code: 3511140

Installation and training

For the price GENTAU provides a notebook, installation and training (demonstration of basic software and hardware functionality). Six hours of installation and training are inclusive in the price at no extra cost for USA and Europe. The necessary materials and tools for connecting the device to the carbon dioxide source are at the expense of the customer.

