chemiluminescence gel imaging system with peltier cooling

Chemiluminescence Gel Imaging System is an advanced imaging equipment used in biological laboratories, which is widely used in the detection of proteins, nucleic acids, immunology and other fields.

The Chemiluminescence Gel Imaging System is compact and powerful, ideal for efficient and accurate imaging analysis in a laboratory environment.

Main Features of Chemiluminescence Gel Imaging System

1. compact design: the system is small in size and lightweight, which can save a lot of laboratory space, suitable for laboratories with limited space.
2. real-time image observation: real-time observation of chemiluminescence images can be carried out through the computer, enabling researchers to instantly view the experimental process and improve experimental efficiency.

3. adjustable cooling function: the system is equipped with adjustable CCD cooling function, the user can choose whether to carry out cooling according to the need to ensure the image quality in different environments.

4. automatic time-delay protection function: the system is built-in intelligent protection function, when used for a long time, it will automatically delay the protection to extend the life of the equipment and ensure safety.
5. Multiple shooting modes: Provide multiple shooting modes, single frame, continuous frame and automatic mode to meet different experimental needs.
6. exposure value evaluation and picture screening: the system can automatically evaluate the exposure value, and support picture screening function, effectively avoiding the image distortion caused by improper exposure.
7. shooting distance: the distance between the lens and the shooting object is less than 20 centimeters, which can be adapted to high-resolution imaging needs.
8. supporting hardware: optional brand computers and printers, to further enhance the system's ease of operation and data processing capabilities.

Advantages

1. space saving and portability: due to the compactness of the device, it does not take up too much space and is suitable for all kinds of laboratories, which need to move the device to carry out experimental scenarios.
2. High precision and sensitivity: the system is able to accurately capture chemiluminescent signals at low concentrations, suitable for sensitive detection and quantitative analysis.
3. Intelligent operation: automatic exposure value evaluation and image screening and other functions simplify user operation and reduce the probability of human error.

4. wide applicability: a variety of modes of choice so that it can operate well in different experimental environments, with a high degree of flexibility.

Working Principle

Chemiluminescence gel imaging system images by utilizing light signals generated by chemiluminescent reactions. Specifically, the target molecule will release photons after being reacted by a chemiluminescent reagent, and the CCD camera can capture these light signals and convert them into a digital image. The system can optimize the image quality by adjusting the exposure time, gain and other parameters, so that the low concentration of biomolecules can be clearly visible. the cooling function of the CCD camera can reduce the background noise and improve the signal-to-noise ratio of the image.

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Model	**E31**
Camera	high-resolution, low-illumination cooled CCD, SONY ICX 285 imported CCD chip
Cooling Method	peltier cooling
Cooling Temperature	-45°C
Effective Pixels	1360x1024
Pixel Depth	16 bit
Pixel Size	6.45x6.45um
Pixel Binning	1x1,2x2,3x3,4x4
Resolution	1.4 Megapixels
Dynamic Range	more than orders of magnitude
Motorized Lens	F 0.95, large-aperture high-transmittance motorized lens

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Model	**E31**
Illumination Mode	reflected white light
Excitation Light Source	LED reflected white light lamp
Imaging Area	180x180mm
Dimensions	405x295x400mm
Weight	14.5kg