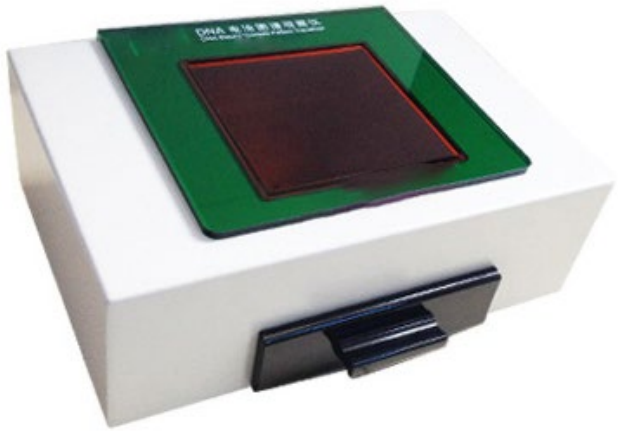
blue light gel electrophoresis viewer for dna analysis

Blue light gel electrophoresis viewer through the low-energy visible blue light, usually around 470nm excitation of specific safety fluorescent dyes, so that the DNA bands emit bright fluorescence, so as to realize the intuitive observation and shooting.

Blue light gel electrophoresis viewer is a new type of tool to replace the traditional UV viewer, without the use of ultraviolet light and toxic dyes, safer and more environmentally friendly, suitable for teaching, scientific research and clinical molecular detection in the field of routine electrophoresis strip imaging.



Features

1. Visible blue light excitation: Abandon traditional UV lamps, use high brightness blue LED excitation light source, avoid UV damage to operator's skin and eyes.
2. compatible with a variety of fluorescent dyes: can be used with SYBR Safe, GelRed, GelGreen, GoldView and other green dyes, strong compatibility.
3. Highly transmissive filters: yellow or amber optical filters are installed in the observation window, effectively filtering out blue background and enhancing the contrast of DNA bands.

4. Instant observation and photography: no need to take pictures to observe with the naked eye, and can also be used with digital cameras, cell phones, imaging systems, etc. to record the bands.
5. portable and easy to use: compact structure, ready to use, suitable for rapid interpretation of experimental results.

Advantages

1. high integrity: avoid the use of ultraviolet light and mutagenic dyes, reduce the occupational health risks of experimental operations.
2. green environmental protection: supporting dyes are non-toxic and non-polluting, without special waste liquid treatment measures.
3. clear image: blue light excitation has a good band signal-to-noise ratio, more stable imaging, higher resolution.
4. low energy consumption and long life: LED light source with low power consumption and long life, almost no maintenance.
5. wide range of applications: can be used for routine DNA electrophoresis strips, but also for some RNA, double staining markers or dual-channel fluorescence applications.

Working Principle

The core of the blue light gel electrophoresis viewer's work lies in photoluminescence: after the nucleic acid dye is embedded in the DNA double strand, it is excited by specific wavelengths, such as 470nm blue light irradiation, and releases visible fluorescence, such as green light or orange-red light. A built-in filtering system blocks the background blue light, allowing only the fluorescent signal to pass through the viewing window, resulting in a clear image of the strip. The whole process is easy to operate without the need for a darkroom or UV protection.

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Model	**E10**
Light Source	LED, 4x11 luminous tubes, with an emission spectral peak at 468nm±3nm
Observation Window	Yellow transparent glass, capable of filtering out 50% of light at a wavelength of 542nm±3nm
Observation Area	120x120mm
Power Supply	230Vac, 50hz
Output Voltage	5Vdc, 2A
Fuse	5A

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Model	**E10**
Dimensions	300x200x120mm
Weight	2.0kg