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GelStar™ Nucleic Acid Gel Stain

Filter Selection Tables

Introduction

GelStar™ Gel Stain represents the latest advance in nucleic acid staining technology. This high performance dye allows sensitive fluorescent detection of DNA and RNA using a standard 300 nm UV transilluminator following gel electrophoresis. Alternatively, systems using laser excitation can be used. Gels can be documented with either Polaroid® or CCD-based camera systems. The charts below will assist you in choosing the best filter for your particular system.

Recommended filters for non-CCD based systems

Documentation System	Recommended Camera Filter	Other Suitable Camera Filters
Polaroid® type 667, 57 or 55 film using a gelatin filter	GelStar™ Filter (Wratten® #9 filter) available from Lonza Rockland, Inc., catalog number 50536. This is a 75 x 75 mm gelatin filter that can be cut to size. For threaded glass filters will result in some loss filters, see below.	Ethidium Bromide (Wratten® #22 filter plus UV filter) or SYBR® green stain filter (Wratten® #15 filter). Use of either of these filters will result in some loss of sensitivity.
Other Polaroid® or standard photographic systems using a glass Tiffen® filter	Tiffen® yellow no. 2 filter (Y-2)	None

Recommended Filters for CCD-based systems

Documentation System	Recommended Camera Filter	Other Suitable Camera Filters
Alpha Innotech AlphaImager® 2000 system	Ethidium bromide bandpass filter from Alpha Innotech	None
Stratagene Eagle Eye® II system	Eagle Eye® SYBR® Green filter from Stratagene (#538DF75D509613)	None
Hitachi FMBIO® or FMBIO II system	505 Filter from Hitachi Software	None
Molecular Dynamics Fluorimager® SI system	515 Long pass filter from the standard filter set	None
Fuji Science Systems FLA-2000	Standard 510 nm cut-off filter provided with the system	None
Fuji Science Systems LAS-1000	Standard 510 nm cut-off filter provided with the system	None

To assist you with GelStar™ Stain use on other systems, the following are the emission and excitation maxima for GelStar™ Stain. There is a secondary excitation peak around 300 nm, which allows use of standard UV transillumination systems.

Excitation Wavelength	***Emission Wavelength DNA (RNA)***
493 nm	527 nm (532 nm)

GelStar™ Stain is manufactured for Lonza Rockland, Inc.

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Not for use in diagnostic procedures.