Basic Fast Green Staining Solution

Cat. No.: A1511546 | Pack size: 2 x 50 mL | Storage: Room temperature; protect from light

Overview

Basic Fast Green Staining Solution is a two-component staining set for visualizing basic proteins. Fast Green binds to negatively charged basic dye sites under alkaline conditions; histone-rich nuclei are the primary targets and appear green after staining.

The staining method is designed for research use with microscopy samples and is not intended for clinical diagnosis or other non-research purposes.

Key Features

- Stains basic protein-rich regions, especially nuclei, green
- Two-component set for preparing fresh alkaline Fast Green working solution
- Compatible with paraffin sections after dewaxing and rehydration
- Suitable for microscopy-based research staining workflows
- Room-temperature storage; protect Fast Green Staining Solution from light

Product Specifications

Parameter	Specification	Notes
Product name	Basic Fast Green Staining Solution	Alkaline Fast Green staining set
Cat. No.	A1511546	Available pack size: 2 x 50 mL
Grade	BioReagent; Biological Stain; for microscopy	Research use only
Storage	Room temperature; protect from light	Shelf life: 12 months
Expected result	Nuclei green; cytoplasm/nucleoli unstained	Depends on sample preparation and pH

Product Contents & Storage

Cat. No.	Component	2 x 50 mL	Storage
A1511546A	Fast Green Staining Solution	50 mL	RT; store in the dark
A1511546B	Alkaline Buffer	50 mL	RT

Shelf life: Stable for 12 months at room temperature when protected from light.

Materials Required But Not Supplied

Item	Recommended Specification	Purpose
Glass slides and coverslips	Clean, microscopy grade	Section handling and mounting
Water bath	Capable of 90 °C	Nucleic-acid extraction/removal step
Microscope	Bright-field microscope	Observation of staining results
70% ethanol, 95% ethanol, absolute ethanol	Freshly prepared or analytical grade	Washing, dehydration and differentiation
5% trichloroacetic acid	User-supplied	Extraction/removal of nucleic acids
Neutral balsam and xylene/clearing reagent	Compatible with sections	Mounting and clearing
pH meter and dilute NaOH/HCl	Calibrated pH meter	Adjustment of working solution pH

Preparation Before Use

1. Immediately before use, mix Fast Green Staining Solution and Alkaline Buffer in equal volumes.
2. Measure the pH of the mixed working solution. Use directly if pH is 8.0-8.5; adjust with dilute NaOH or HCl if outside this range.
3. Do not store the prepared working solution for an extended period. Prepare fresh working solution for each staining session.

Protocol

1. Deparaffinize paraffin sections and bring to water.
2. Immerse sections in 5% trichloroacetic acid and incubate at 90 °C for 15 min in a water bath to extract/remove nucleic acids.
3. Rinse briefly with running water, then wash three times in 70% ethanol for 3 min each. Blot excess moisture with filter paper.
4. Stain in freshly prepared Basic Fast Green Staining Solution for 20-30 min.
5. Rinse in running water for 5 min, treat with 95% ethanol for 30 sec, then dehydrate twice in absolute ethanol for 1 min each.
6. Clear twice in xylene or clearing solution for 1 min each. Mount with neutral balsam and examine microscopically.

Expected Results

Target / Structure	Expected Color
Most regions of the cell nucleus	Green
Cytoplasm and nucleoli	Unstained

Safety & Precautions

- Blood smears or bone marrow smears should be uniform in thickness to avoid staining artifacts.
- Fresh whole blood or EDTA-anticoagulated blood is required for blood-cell smear staining.
- If overstained, decolorize appropriately with methanol or ethanol; restaining is not recommended.
- pH influences staining. Use clean slides free of acid or alkali contamination.
- Wear a lab coat and disposable gloves during operation.

Read the current SDS before use. Wear lab coat, gloves, and eye protection. Handle reagents according to local laboratory safety and EHS procedures.

Quality Control

QC Item	Method	Acceptable Range
Component completeness	Visual inspection on receipt	All components and volumes match the Product Contents & Storage table; lot number and expiry date legible.

QC Item	Method	Acceptable Range
Staining performance	Pilot staining with a representative sample	Expected target color and tissue/cell contrast are observed under the recommended microscope settings.
Reagent appearance	Visual inspection before use	No heavy precipitate, leakage, or abnormal turbidity beyond normal dye characteristics. Filter dye solution if required by protocol.

Troubleshooting

Issue	Possible Causes	Corrective Action
Weak or absent staining	• Insufficient staining time • Over-differentiation or excessive destaining • Reagent deterioration or incorrect working solution	• Extend staining time within the recommended range • Reduce differentiation/destaining time • Prepare fresh working solution and protect light-sensitive dyes from light
High background or overstaining	• Excessive staining time • Incomplete washing • Thick or uneven sections/smears	• Shorten staining time or increase differentiation • Wash thoroughly with water or ethanol as specified • Prepare thinner, even sections/smears
Uneven staining	• Incomplete dewaxing/rehydration • Slides contaminated with acid/alkali or oil • Sample thickness inconsistent	• Repeat dewaxing and graded rehydration • Use clean glassware and fresh solutions • Optimize section thickness and sample mounting

Recommended Applications

Research staining of basic proteins and nuclear regions in microscopy samples.

Contact & Global Offices

Whether you have a technical question, need help with a quotation, or want to inquire about an order, our regional teams are ready to assist. Please contact the office for your region; for general inquiries, use the North American sales and customer service contacts below.

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Limitations & Disclaimer

For Research Use Only (RUO). Not for use in human or animal diagnostics, therapeutics, or in vivo applications. Not for food, cosmetic, household, or other unauthorized uses.

This product is not a CE-marked in vitro diagnostic device under IVDR (EU) 2017/746 and is not an FDA-cleared device under 21 CFR. Use is restricted to verified businesses, institutions, and qualified professionals.

Where any reagent or component is classified as hazardous under CLP (EC) 1272/2008 or OSHA HCS (29 CFR 1910.1200), the product Safety Data Sheet (SDS), product label, and approved specifications take precedence over this document for handling, storage, transport, and disposal.

Performance depends on sample type, sample condition, handling, storage, and operator technique. Users are responsible for validating this product for their specific application.