

DNA Staining Method Based on Formazan Precipitation Induced by Blue Light Exposure

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JOVE-JOURNAL OF VISUALIZED EXPERIMENTS

Número: 131

Número de artículo: e56528

DOI: 10.3791/56528

Fecha de publicación: JAN 2018

Tipo de documento: Article

[Ver impacto de la revista](#)

Resumen

DNA staining methods are very important for biomedical research. We designed a simple method that allows DNA visualization to the naked eye by the formation of a colored precipitate. It works by soaking the acrylamide or agarose DNA gel in a solution of 1x (equivalent to 2.0 μ M) SYBR Green I (SG I) and 0.20 mM nitro blue tetrazolium that produces a purple precipitate of formazan when exposed to sunlight or specifically blue light. Also, DNA recovery tests were performed using an ampicillin resistant plasmid in an agarose gel stained with our method. A larger number of colonies was obtained with our method than with traditional staining using SG I with ultraviolet illumination. The described method is fast, specific, and non-toxic for DNA detection, allowing visualization of biomolecules to the "naked eye" without a transilluminator, and is inexpensive and appropriate for field use. For these reasons, our new DNA staining method has potential benefits to both research and industry.

Palabras clave

Palabras clave de autor: [Biochemistry](#); [Issue 131](#); [DNA Staining](#); [DNA Integrity](#); [DNA Quantification](#); [SYBR Green](#); [Formazan](#); [Nitro Blue Tetrazolium](#); [Blue Light](#)

KeyWords Plus: [AGAROSE GELS](#); [TETRAZOLIUM SALTS](#); [ETHIDIUM-BROMIDE](#); [VISIBLE DYE](#); [VIOLET](#)

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Financiación

Entidad financiadora	Número de concesión
Fondo Nacional de Desarrollo Científico y Tecnológico (Fondecyt), Chile	11130263
Project CONICYT + NERC + Programa de Colaboración Internacional	PCI-PII20150073
U-inicia from the Vicerrectoría de Investigación Universidad de Chile	

[Ver texto de financiación](#)

Editorial

JOURNAL OF VISUALIZED EXPERIMENTS, 1 ALEWIFE CENTER, STE 200, CAMBRIDGE, MA 02140 USA

Información de la revista

- Impact Factor: [Journal Citation Reports](#)

Categorías / Clasificación

Áreas de investigación: Science & Technology - Other Topics

Categorías de Web of Science: Multidisciplinary Sciences

Información del documento

Idioma: English

Número de acceso: **WOS:000426095700050**

ID de PubMed: 29443080

ISSN: 1940-087X