SureClean Plus

Shipping: Room temperature Batch No.: See vial Catalog numbers BIO-37047: 5 mL BIO-37048: 25 mL

Storage and stability: SureClean Plus is shipped at room temperature. Do not freeze. Avoid exposure to light. Mix and briefly centrifuge each component before use.

Expiry: When stored under the recommended conditions and handled correctly, full activity is retained until the expiry date on the outer box label.

Safety precautions: Please refer to the material safety data sheet for further information.

Quality control specifications:

SureClean Plus is extensively tested for contamination prior to release.

Notes: For research or further manufacturing use only.

Trademark: MyTaq is a trademark of Bioline Reagents Ltd.

Description

SureClean Plus is a novel, inexpensive solution, which provides a column-free method for nucleic-acid purification. Using a simple and rapid procedure, SureClean Plus can be used to purify or concentrate DNA or dsRNA from PCR reactions or any enzymatic digests. This method is easy to follow, combining convenience, speed and excellent recovery rates.

Features

- Column-free PCR clean-up
- Contains pink dye for improved visibility and minimal pellet loss
- Post-PCR recovery of up to 98%
- Cost-effective, simple and rapid protocol
- Products are suitable for immediate downstream applications

Components

Product Name	5 mL	25 mL
SureClean Plus	1 x 5 mL	1 x 25 mL
Co-Precipitant Pink	1 x 0.8 mL	1 x 4 mL

Simple, Flexible and Column-free Protocol

SureClean Plus removes proteins (such as restriction enzymes, polymerases, etc.), primers, primer-dimers and dNTPs. A very straightforward protocol allows the precipitation of nucleic acids ≥75 bp without the need for organic solvents, or expensive spincolumns. Unlike many column-based methods, SureClean Plus maximizes recovery with nucleic acid solutions, whether of low, medium or high concentration. SureClean purifies nucleic acid without the use of chaotropic salts (which often contribute to denaturation of the DNA duplex). SureClean Plus enables the researcher to re-suspend the cleaned-up nucleic acids in any buffer and volume of choice, thus permitting the purification process to be tailored specifically to suit the experiment.

Optimized Nucleic Acid Recovery

SureClean Plus has been tailored to maximize the amount of nucleic acid recovered after purification, providing up to 98% recovery of the original sample for immediate downstream applications. SureClean Plus also contains a Co-Precipitant Pink that can be added to the sample to facilitate easy visualization of the purified pellet. Although the Co-Precipitant Pink does not interfere with downstream applications such as cloning, PCR, qPCR or enzymatic reactions, it is not compatible with spectrophotometric analysis.

Associated products

Product Name	Pack size	Cat. No.
RANGER DNA Polymerase	250 Units	BIO-21121
MyTaq™ Red DNA Polymerase	500 Units	BIO-21108

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Applications

- PCR clean-up
- Removes primers, primer-dimers, dNTPs and restriction enzymes
- DNA or dsRNA purification or concentration

SureClean Plus Protocol

Optional initial Step for achieving a pink-colored pellet:

Add 6 μ L of Co-Precipitant Pink to your nucleic acid sample and mix thoroughly for 30 s. For samples \geq 200 μ L, increase the amount of Co-Precipitant Pink accordingly, but never use more than 20 μ L. (Note: To ensure an efficient recovery, a minimum of 3 μ L of Co-Precipitant Pink must be *used*)

- 1. Add an equal volume of SureClean Plus to nucleic acid solution and mix thoroughly.
- 2. Incubate at room temperature for at least 10 min.
- 3. Centrifuge at maximum speed (best results at 14,000x g) in a bench-top centrifuge for 10 min and carefully remove the supernatant by aspiration. (*Note: Centrifuging for longer time leads to better DNA recovery*)
- 4. Add a volume of 70% ethanol equal to 2x the original sample volume and vortex for 10 s. (*Note: For sensitive applications an optional second ethanol wash can be performed*)
- **5.** Centrifuge at maximum speed (best results at 14,000 x g) in a bench-top centrifuge for 10 min, remove the supernatant and air-dry to ensure complete removal of ethanol. (*Note: Do not over -dry the pellet*)

Resuspend pellet in desired volume of TE, water or any other appropriate buffer for downstream procedures.

Notes:

- A. The apparent molecular weight of the DNA treated (agarose gel electrophoresis) may be higher if the washing-step with 70% ethanol step is omitted. For an accurate molecular weight assay, two washing steps are recommended after the cleaning procedure.
- B. Nucleic acids to be purified must be \geq 100 bp.

Citations:

- 1. Melville J., et al. Royal Society Open Sci. 6(5), 190233 (2019).
- 2. Ip, Y. C. A., et al. Biodiversity Data J. e46833 (2019).
- 3. Gonnella G. et al. BMC genomics, 20(1), 339 (2019).
- 4. İspirli, H., et al. Canadian J. Microbiol. 61(11), 861-870 (2015).
- 5. Aldhoun, J.A., et al. Parasitol. Int. 58(3), 314-317 (2009).

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