

Instructions For Use

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ExS-Pure™ **Enzymatic PCR Cleanup Kit**



NimaGen.

Innovators in
DNA Sequencing
Technologies

Product and Company Information

ExS-Pure™ Enzymatic PCR Cleanup Kit










EXS-100, EXS-500, EXS-5000

Research Use Only



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Symbols Used on Product Labels and in Instructions for Use

Symbol	Description
	Manufacturer
	Use-by date
	Lot number
	Reference number
	Temperature limit for storage
	Contains sufficient for <n> tests
	Matrix code containing the reference number, lot number and use-by date

Product Description

The ExS-Pure™ Enzymatic PCR Cleanup Kit is an ultra-fast method that degrades primers and dephosphorylates nucleotides (dNTP'S) from amplified PCR products, to make it ready for downstream applications, such as cycle sequencing or SNP analysis.

The ExS-Pure™ Kit utilizes two novel enzymes:

- *Recombinant, Heat-labile Shrimp Alkaline Phosphatase:*
Dephosphorylates nucleotides, making them inactive in downstream processing. It is crucial to remove any excess of dNTP's in the template, since those may unbalance the reaction mix in cycle-sequencing or other downstream applications.
- *Recombinant, Heat-labile Exonuclease I:*
Degrades single-stranded DNA (including oligonucleotide primers), in order to get clean sequence traces without background from the unwanted strand, generated by traces of the original PCR primers.

Both enzymes are fast, robust and heat-labile, enabling PCR product cleanup in only minutes time, without the need for adjusting buffer conditions, followed by an ultra-fast, 100% inactivation. ExS-Pure™ is directly added to the amplified PCR product. The reaction takes place in a single tube and recovers 100% of the PCR product, including very small PCR products.

ExS-Pure™ is the proven and widely adopted alternative for Applied Biosystems ExoSAP-IT™ and ExoSAP-IT™ *Express*.

Kit Contents and Storage

ExS-Pure™ Enzymatic PCR Cleanup Kits include a ready-for-use enzyme solution for purification of 100 up to 5000 PCR reactions, using a 96-well or 384-well PCR plate format:

Reference	Volume	# Reactions (5 µL PCR product)	Storage
EXS-100	0.2 mL	100	Store kit at -15 °C to -25 °C and avoid repeated freeze-thaw cycles.
EXS-500	1 mL	500	
EXS-5000	10 mL	5000	

Required Materials, Not Included

Description
96- or 384-well plates, compatible with 96-well or 384-well thermocycler
(Multichannel) Pipettes, including disposable filter tips

General Precautions

Read the Material Safety Data Sheet (MSDS) and follow the handling instructions. Adhere to good laboratory practice and wear protective eyewear, gloves and lab coat when handling the reagents (enzyme solutions) supplied in this kit. Wash body parts with ample amount of water immediately if they come in contact with the reagents. Seek medical help if needed.

Protocol

Important: Keep ExS-Pure™ reagent on ice or in a cooling block during the procedure.

1. Mix 5 μ L of PCR product with 2 μ L of ExS-Pure™, for a combined 7 μ L of reaction volume. NOTE: When treating PCR product volumes greater than 5 μ L, simply increase the amount of ExS-Pure™ reagent proportionally.
2. Seal the plate, vortex it for 3 sec, then centrifuge for 10 - 15 sec at 1000 rpm.
3. Place the plate (or tubes) in a thermal cycler with heated lid, to prevent evaporation.
4. Incubate for 4 min at 37 °C to perform enzymatic purification, degrading remaining primers and nucleotides.
5. Heat-inactivate the ExS-Pure™ reagent for 1 min at 90 °C; then hold at 4 °C.
6. The PCR product is now ready for downstream processing (e.g. cycle sequencing). NOTE: Purified PCR products may be stored at -20 °C.
7. Taking care of the concentration, a further dilution step may be required. Rule of thumb: optimal template input (ng) in a BrilliantDye™ Terminator Cycle Sequencing reaction can be calculated by dividing the PCR product length (bp) by 50. Example: use 10 ng of PCR product with a length of 500 bp as template.

Customer Support

For technical assistance, please contact us at techsupport@nimagen.com.

Revision History

Section	Summary of changes	Version	Date
All	Not applicable. New document.	2.0	2017-08-09
All	New layout. New introduction (Product Description). Kit Contents and Storage. General Precautions.	2.1	2023-06-23

Legal Notice

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