ExoSAP-IT *Express* PCR Product Cleanup Reagent

The Applied Biosystems™ ExoSAP-IT™ *Express* reagent offers increased, high-quality yields and faster turnaround time compared to other purification methods, while delivering the same superior cleanup as the original ExoSAP-IT reagent. This one-step enzymatic PCR cleanup reagent ensures high-quality sequencing results.

Key features

- **5 min protocol**—fastest enzymatic cleanup of PCR products
- **One-tube, one-step PCR cleanup**—add reagent directly to PCR product
- **Conserve PCR samples**—100% recovery of PCR products, regardless of amplicon length
- **Scalable**—compatible with PCR reaction volumes from 5 µL to 5 mL
- **Eliminate spin columns or beads**—helps decrease time and cost while increasing yield
- **Go green**—generate less waste with our single-tube solution to PCR purification
- **Optional tracking dye**—never lose track of reagent addition during pipetting

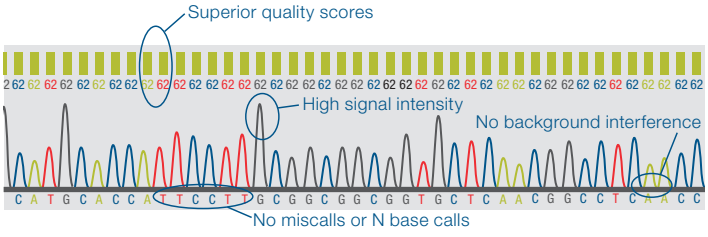

Figure 1. Sequencing results of a 1 kb PCR product treated with ExoSAP-IT *Express* reagent. Treatment with ExoSAP-IT *Express* reagent prior to sequencing eliminates miscalls and improves sequencing scores (numbers and bars above sequence; quality score >60, probability of error ≤0.0001%). Sequence shown is approximately 400 bases from the primer binding site.

High-quality, accurate results

Compared with alternative PCR cleanup methods, ExoSAP-IT *Express* PCR Product Cleanup Reagent helps to ensure the availability of purified samples ready for downstream applications in just 5 minutes. This unique, highly stable one-tube solution allows for 100% recovery of DNA and longer read lengths for greater confidence, consistency, and accuracy. PCR products give superior sequencing results when treated with ExoSAP-IT *Express* reagent (Figure 1).

Fastest PCR cleanup method

ExoSAP-IT *Express* reagent includes a novel exonuclease I that removes unincorporated primers and nucleotides with a reduced purification time. Only one pipetting step is required, simplifying the workflow and producing a sample ready for downstream applications in only 5 minutes.

How it works

ExoSAP-IT *Express* reagent is a proprietary mixture of the engineered exonuclease I combined with shrimp alkaline phosphatase (SAP) in a specially formulated buffer that removes excess primers and dNTPs following PCR (Figure 2).

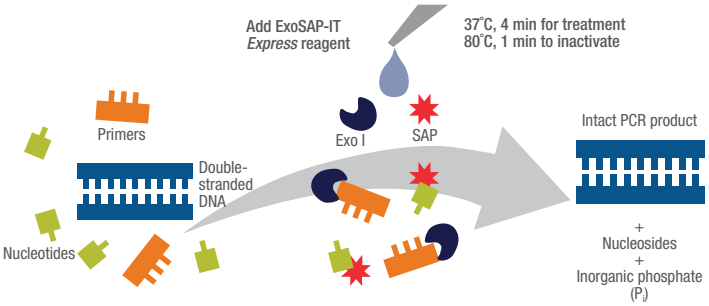

Figure 2. Overview of enzymatic cleanup with ExoSAP-IT *Express* reagent.

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Exonuclease I removes residual single-stranded primers and any single-stranded DNA produced during PCR. SAP removes the remaining dNTPs, which may interfere with subsequent reactions. Thus, ExoSAP-IT *Express* reagent serves as a dual-action cleanup product. Treat 5 µL of PCR product with 2 µL of ExoSAP-IT *Express* reagent. Once the contaminants are removed, your PCR products are ready for downstream applications such as:

- Sequencing
- Fragment analysis
- Single-nucleotide polymorphism (SNP) analysis
- *In vitro* transcription
- Single-base extension

Conserve PCR samples—simple one-step cleanup, 100% recovery

The ExoSAP-IT *Express* enzymatic cleanup method is designed to minimize errors by reducing your protocol to a single pipetting step, allowing for automated or manual processing from a single tube or microplate well. ExoSAP-IT *Express* reagent outperforms the competition with 100% recovery of all amplicon sizes, from short to long (Table 1).

Table 1. DNA recovery after PCR cleanup.*

Amplicon size	Agencourt™ AMPure™ XP beads	ExoSAP-IT *Express* reagent
86 bp	10%	100%
103 bp	12%	100%
545 bp	63%	100%
1,007 bp	88%	100%

* ExoSAP-IT *Express* reagent enables 100% recovery and provides effective cleanup of all amplicon sizes. In contrast, Agencourt AMPure XP beads were ineffective at purifying small amplicons, whether determined by image analysis or by the Invitrogen™ Quant-iT™ PicoGreen™ assay.

Use of ExoSAP-IT *Express* reagent eliminates gel or column purification and bead-based magnetic separations. With a 5 min protocol, ExoSAP-IT *Express* reagent enables the fastest and easiest method for PCR cleanup and minimizes pipetting errors or contamination when compared with spin columns or magnetic beads (Figure 3).

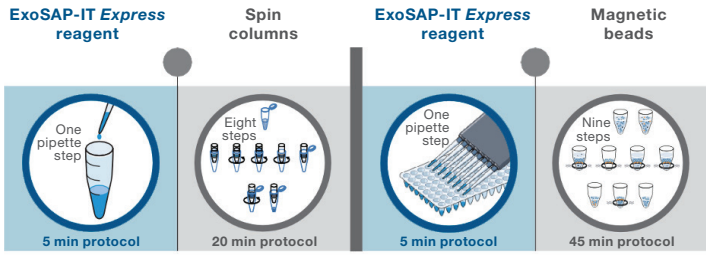

Figure 3. ExoSAP-IT *Express* reagent vs. spin columns and magnetic beads.

Optional tracking dye

ExoSAP-IT *Express* reagent is also available with a premixed tracking dye for added convenience. This inert blue dye offers visual confirmation that the reagent has been added to samples for PCR cleanup. The dye does not interfere with downstream applications such as PCR and sequencing.

Ordering information

Product	Quantity	Cat. No.
ExoSAP-IT *Express* PCR Product Cleanup Reagent	20 reactions	75001.40.UL
	100 reactions	75001.200.UL
	500 reactions	75001.1.ML
	2,000 reactions	75001.4X.1.ML
	5,000 reactions	75001.10.ML
	480 reactions in 8-tube strips	75001.1.EA
ExoSAP-IT *Express* PCR Product Cleanup Reagent with Tracking Dye	500 reactions	A35004
	1,920 reactions (96-well plate, 40 µL per well)	A35005

Find out more at **thermofisher.com/exosapit**

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