

High Pure PCR Cleanup Micro Kit

Add more flexibility to nucleic acid purification

Use the **High Pure PCR Cleanup Kit** to quickly and efficiently purify products from PCR and other reactions.

Save time with a fast and simple protocol that generates concentrated, contaminant-free DNA for direct use in downstream applications such as PCR, sequencing, and cloning. The versatile kit can also be used to concentrate dilute nucleic acid solutions, purify cDNA, and recover DNA from agarose gel slices.

■ Purify a broad range of sample materials.

Conserve resources by using one versatile kit for diverse applications, eliminating the need to use several kits from other suppliers (Figure 1).

■ Obtain consistent, concentrated yields.

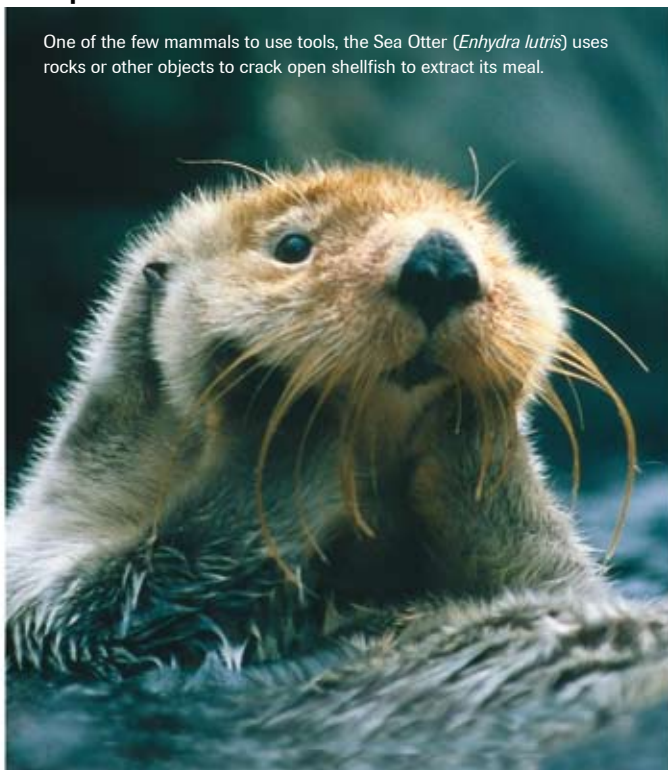
Recover high yields of purified product in a small elution volume ($\leq 10 \mu\text{l}$) in as little as 10 minutes for demanding downstream applications (Figure 2).

■ Eliminate nonspecific products.

Selectively isolate specific DNA fragment sizes (e.g., small fragments of 25-100 bp) by using the kit's binding enhancer to adjust purification stringency (Table 1).

Experts at Extraction

One of the few mammals to use tools, the Sea Otter (*Enhydra lutris*) uses rocks or other objects to crack open shellfish to extract its meal.



Customize performance for your application

High Pure PCR Cleanup Micro Kit Protocol Options	Recovery according to fragment size		
	50 bp	100 bp	400 bp
no Binding Enhancer	-	+	++
20% Binding Enhancer	+	++	++
40% Binding Enhancer	++	++	++

Table 1: Increase versatility and optimize yields. The High Pure PCR Cleanup Micro Kit's Binding Enhancer and Binding Buffer enable easy adjustment of binding conditions to suit different applications. Small nucleic acid fragments such as oligonucleotides and primer-dimer artifacts are removed when no Binding Enhancer is used. Increasing amounts of Binding Enhancer yield higher recoveries of nucleic acids. For maximal recovery of nucleic acids, 40% Binding Enhancer is recommended.

Obtain high-quality DNA for diverse applications

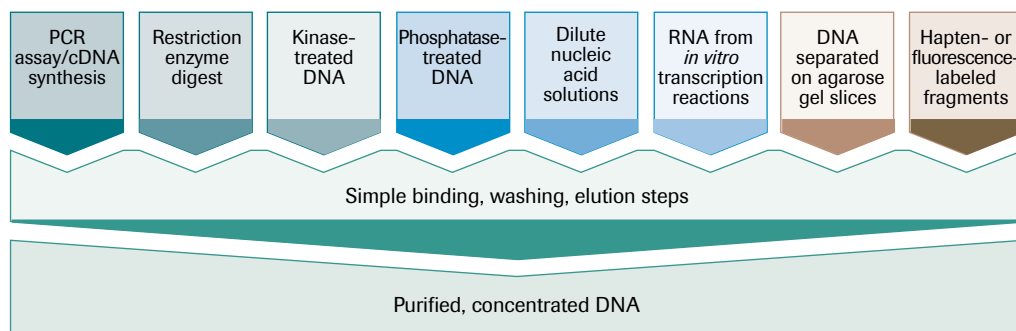


Figure 1: Use a single kit for a variety of applications.

The fast and simple protocol uses a tabletop centrifuge to bind, wash, and elute the reaction product down to 10 µl in as little as 10 minutes. The procedure conveniently eliminates a concentration step, and is ideal for downstream applications such as labeling, sequencing, cloning, and ligation, or PCR analysis on systems such as the LightCycler® 480 System.

Efficiently purify nucleic acids with a novel column format

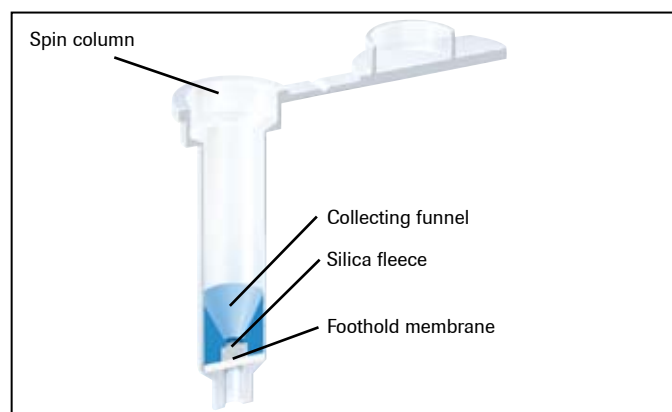


Figure 2: Obtain small elution volumes with an innovative column design. This cross-sectional view of the High Pure PCR Cleanup Micro Kit column shows the special reducing device (blue area). The collecting funnel creates a non-slip cavity for the column's silica membrane, and ensures high purity and removal of unwanted reaction components.

Optimize PCR product purification

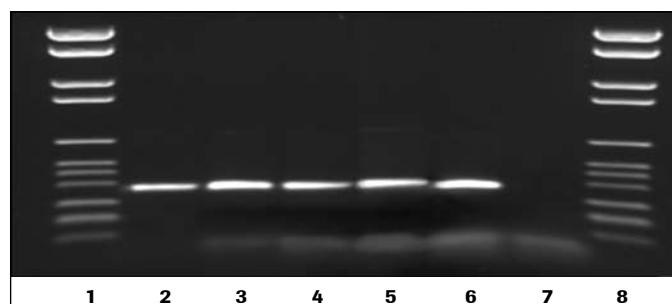


Figure 3: Selectively isolate PCR fragments using different amounts of Binding Enhancer. A 341 bp PCR fragment of the tPA gene was amplified according to a standard block cycler protocol. The resulting reaction mixes were pooled and purified with the High Pure PCR Cleanup Micro Kit. Different amounts of Binding Enhancer were used in the purification procedure. The recovered PCR products were analyzed on a 1% agarose gel.

Lane 1: Molecular Weight Marker VI

Lane 2: 0% Binding Enhancer

Lane 3: 10% Binding Enhancer

Lane 4: 20% Binding Enhancer

Lane 5: 40% Binding Enhancer

Lane 6: PCR without purification

Lane 7: PCR negative control (PCR without template)

Lane 8: Molecular Weight Marker VI

Results: Small DNA fragments are efficiently removed by the High Pure PCR Cleanup Micro Kit, even in the absence of Binding Enhancer (Lane 2). Increasing Binding Enhancer concentrations (Lanes 3-5) yield optimal recovery of all reaction products, maximizing purification of small PCR fragments.

Generate high-purity DNA with excellent recovery

Protocol	cDNA yield (µg)	Purity 260/280 (ratio)	Cy5 dUTP (nmol)
Kit from Supplier 1	1.1	2	0.22
Kit from Supplier 2	0.1	1.9	Not detectable
High Pure PCR Cleanup Micro Kit + 20% Binding Enhancer	1.8	2.1	Not detectable
High Pure PCR Cleanup Micro Kit + 40% Binding Enhancer	1.9	2.1	0.01

Table 2: Obtain both high yield and purity with Roche's High Pure PCR Cleanup Micro Kit. A reverse transcription product spiked with Cy5 dUTP was purified using the Roche kit or kits from other suppliers. Yield, purity (260/280 OD ratio), and the amount of remaining Cy5 dUTP were determined using a NanoDrop instrument.

Results: The High Pure PCR Cleanup Micro Kit efficiently removes Cy5 dUTP from the reaction products with high recovery and purity, even when using 40% Binding Enhancer.

Ordering information

Product	Cat. No.	Pack Size
High Pure PCR Cleanup Micro Kit	04 983 955 001	Up to 50 purifications
	04 983 912 001	Up to 200 purifications

For more information about the **High Pure PCR Cleanup Micro Kit** and other products for nucleic acid isolation and purification, visit

www.roche-applied-science.com/napure

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