A&A BIOTECHNOLOGY
innovating life science

Clean-Up Concentrator

Kit for DNA cleanup after PCR and other enzymatic reactions
using restriction enzymes, ligase, kinase, etc.
Low elution volume (from 15 µl).

version 0617

50 isolations, 250 isolations

Cat. # 021-50C, 021-250C

The binding capacity of the purification microcolumn - up to 10 µg of DNA.
DNA fragments range - from 100 bp to 10 000 bp.
Typical DNA recovery - 70-90%.
Elution volume - 15-30 µl.

For R&D use only.

A&A BIOTECHNOLOGY, Aleja Zwycięstwa 96/98, 81-451 Gdynia, Poland
tel: +48 58 6982194, +48 883 323 761, fax: +48 58 6228578
VAT PL5840254403
info@aabiot.com www.aabiot.com

Kit Contents

Component	50 isolations	250 isolations	Store at
Microcolumns	50 pcs	250 pcs	Room Temp.
1.5 ml elution tubes	50 pcs	250 pcs	Room Temp.
GI binding solution	30 ml	140 ml	Room Temp.
A1 wash solution	30 ml	140 ml	Room Temp.
Sodium acetate (3 M, pH 5.5)	1 ml	3 x 1 ml	Room Temp.
Tris buffer (10 mM, pH 8.5)	2 ml	9 ml	Room Temp.

Equipment and materials necessary for DNA purification that are not included in the kit

1. DNA sample after enzymatic reactions
2. Centrifuge
3. Vortex (option)

NOTE:
Before you start working, we recommend cleaning the work surface using LabZAP™ product (cat. # 040-500)

A&A Biotechnology provides one year guarantee on this kit

The company does not guarantee correct performance of this kit in the event of:

- not adhering to the supplied protocol
- not recommended use of equipment and materials
- the use of other reagents than recommended or which are not a component of the kit
- the use of expired or improperly stored reagents and columns

Purification protocol

1. Mix DNA samples (max 100 µl) with 5 volumes of GI binding solution. Mix by inverting the tubes or vortexing.

optimal condition pH ≤ 7.2

Binding solution GI contains the colour pH indicator.
Upon mixing the DNA sample with binding solution GI, yellow colour of the mixture indicates an optimal pH for DNA binding.

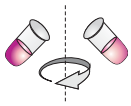
If the mixture colour turns pink, pH of the solution is too high.
In such conditions DNA binds inefficiently to the silica membranes and may be lost.

too high pH

If the colour of the solution is pink adjust the pH by adding 1–10 µl of 3M sodium acetate solution (pH 5.5) (included) and mix.
As soon as the colour of the mixture turns yellow, proceed with the purification protocol.

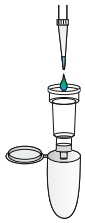
It is not necessary to remove the mineral oil overlay if added to enzymatic reaction mixture.

2. Briefly centrifuge the sample to remove the leftovers of solution from the tube walls and caps.

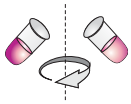


3. Apply the mixture onto the microcolumns.

Close the tubes with the caps.



4. Centrifuge for 30–60 s at 10 000–15 000 RPM.

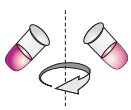


5. Open the tubes, remove the microcolumns from the tubes. Discard the filtrates and re-attach the microcolumns to the same tubes.

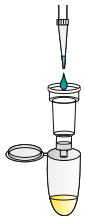
6. Add 300 µl of A1 wash solution.

Close the tubes with the caps.

7. Centrifuge for 30–60 s at 10 000–15 000 RPM.

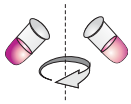


8. Add 200 µl of A1 wash solution.



Close the tubes with the caps.

9. Centrifuge for 2 min at 10 000–15 000 RPM.

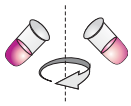


10. Transfer the dry microcolumns to the new 1.5 ml elution tubes (included). Add 15–30 µl of Tris buffer directly onto the microcolumns resin.

Close the tubes with the caps.

Applying elution liquid (TE buffer or sterile water) onto the minicolumn be sure that liquid is applied directly onto the resin.
If some of liquid stays on the column walls the elution will be less effective.
Elution volume of 30 µl is recommended for fragments of size over 2000 bp.

11. Incubate for 3 min at room temp.
Centrifuge for 2 min at 10 000–15 000 RPM.



12. Open the tubes, remove the microcolumns and close the tubes.

Store the DNA at +4 °C to +8 °C.

Elution tubes has a long, elastic cap connector. Start closing the tube by carefully pressing the cap on the connector side. A „click" sound confirms proper closure. Different way of closing may cause opening of the tube during storage.

Safety information

DANGER

A1 wash solution
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
P210 Keep away from heat, sparks, open flames, hot surfaces. No smoking.
P261 Avoid breathing vapours.
P305+P351+P338 If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

WARNING

GI binding solution
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
P305+P351+P338 If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.