DANAGENE CLEAN & CONCENTRATION KIT

REF.0503.1 50 PURIFICATIONS
REF.0503.2 250 PURIFICATIONS
REF.0503.3 1000 PURIFICATIONS

1. INTRODUCTION

This kit provides a rapid method for purification and concentration of **high-quality DNA from PCR or enzymatic reactions with an extremely small elution volume of only 10 µl** using specials MicroSpin columns.

Applications:

- **PCR products clean-up, efficient desalting of DNA with the removal of DNA polymerases, primers and free dNTPs.**
- **DNA clean-up from Enzymatic Reactions, including: Desphosphorylation, Restriction enzyme digestion, Ligation, Primed synthesis, Endlabeling and Nick translation.**
- **Isotope and Dye Removal, efficiently removes unicorporated fluorescent (i.e., AMCA, FITC, BIO, DIG, Cy3, Cy5, FAM, etc) and radiolabeled dNTP derivats from DNA following in vitro labeling reactions.**

Features:

- **The microspin columns are designed to allow elution in very small volumes (as little as 10 µl) delivering highly concentrated DNA in high yields.**
- **DNA Size Limits: From 70 pb to 23 Kb.**
- **DNA Recovery: Tipically, up to 5 µg total DNA per column can be eluted into as little as 10 µl.**
- **The protocol is done in 2 minutes.**
- **Fast procedure and easy handling.**
- **Eluted DNA is well suited for use in DNA ligation, sequencing, labelling, PCR, etc.**

2. KIT COMPONENTS

	Ref. 0503.1 50 preps	Ref. 0503.2 250 preps	Ref. 0503.3 1000 preps	
Binding Solution	15 ml	75 ml	4 x 75 ml	Room temperature
Wash Solution	10 ml	50 ml	4 x 50 ml	Room temperature
Elution Solution	2 ml	10 ml	4 x 10 ml	Room temperature
Spin Columns	50 unid.	250 unid.	1000 unid.	Room temperature
Recollection Tubes	50 unid.	250 unid.	1000 unid.	Room temperature

Equipment and aditional reagents required
* Microtubes.
* Microcentrifuge.
* Water bath.
* Ethanol 100 %.
* Isopropanol.

3. PROTOCOL

3.1 Preliminary Preparations

• **ADD 40 ml** 50 test**, 200 ml** 250 test **OF 100% ETHANOL TO THE WASH SOLUTION** .
Label the container and keep it closed to avoid ethanol evaporation.

• **ADD 10 ml** 50 test , **50 ml** 250 test **OF 100% ISOPROPANOL TO THE BINDING SOLUTION.**
Label the container and keep it closed to avoid isopropanol evaporation.

• Pre-heat the Elution Buffer at 70ºC.

3.2 Protocol:

1. **Add 5 volumes Binding Solution with isopropanol** to 1 volume of PCR (50 -100 µl). Mix well.
2. **Transfer the sample to a spin column.**Put the spin column in collecting tube.
3. **Centrifuge for 1 minute at 10.000-12.000 r.p.m.**
4. **Remove the filtrate and add 600 µl of the Washing solution** . Centrifuge for 1 minute at 14.000 r.p.m.
5. **Remove the filtrate and add 200 µl of washing solution.** Centrifuge for 1 minute at 14.000 r.p.m.
6. **Remove the residual ethanol** by centrifugation for 3 minutes at 14.000 r.p.m.
7. Transfer the spin column into a new receive microtube and add **12 µl of prewarmed Elution Buffer** (10 mM Tris.HCl, ph 8.5) a**t 70ºC.** Ensure that the elution buffer is dispensed directly onto the center of the membrane for complete elution of bound DNA. The average eluate volume is 10 µl from 12 µl elution buffer volume.
8. **Incubate for 2 minutes and centrifuge for 1 minute at 14.000 r.p.m.**

4. PROBLEM GUIDE AND POSSIBLE ANSWER

For any question regarding the work protocols o problems. Please, contact DanaGen-BioTed technical service for any comment or question regarding the protocol.