Enzymax, LLC

Product Information

Product Name: DNA cleanup and concentration kit
Catalog no.: 602
Size: 50 preps

Related products:	Catalog No.
Tini Spin columns w/collection tubes	EZC106
DNA Tini prep kit (directly from single colony)	600
DNA gel extraction kit (50)	EZC203

Description:

This kit is designed to clean up and concentrate DNA from ChIP Assay or other samples containing small amount of DNA. With advance designed Tini Spin Column, it provides a hassle-free method for the rapid purification and concentration of high quality DNA from any standard ChIP protocol, including samples from: A) reverse cross-link, Proteinase K or RNase A digestion, mechanical or nudease-mediated DNA shearing and B) elution from chromatin-antibody-bead complexes in TES, 0.1M NaHCO3 and 1% SDS. The specially formulated ChIP DNA binding Buffer promotes the DNA binding to the column and purify the DNA from buffers containing detergents up to 5% Triton X-100, 5%Tween-20, 5% Sarkosyl, and 1%SDS. The kit can also be used to purify DNA or Oligo (17bp -10kb) from other enzymatic reactions. The elution volume of Tini spin column is as low as 5µl, which can be used as a concentrator for DNA samples.

Feature:

- Easy and rapid with 10 min. procedure using Tini Spin Column.
- High quality DNA recovery and concentration
- Cleanup DNA from standard ChIP assay, mini prep, and enzymatic reactions (eg. labeling, restriction, and dephosphorlation)
-Concentrate DNA to as low as 5µl volume. –Recover DNA from 17bp-10kb

Kit Contents:

Components	***DNA cleanup and concentration 50 Preps (***cat# 602)
ChIP DNA Binding Buffer (concentrated)*	12 ml
5xWash Buffer**	6 ml
3M Sodium Acetate	500µl (Do not store at 4^0C)
Tini spin column with collection tube***	50

***Add 100% isopropanol before use:** add 18 ml 100% **isopropanol** to12 ml ChIP DNA Binding Buffer.
****Add 100% ethanol before use:** add 24ml 100% **ethanol** to 6ml 5xWash Buffer.
**Tini Spin columns can be order separately for leftover solutions (cat#EZC106, $39 for 50 columns)

Caution:
ChIP DNA Binding Buffer contains chaotropic salt. Please use proper safety precautions and always wear gloves when handling the reagent. Avoid contact with skin, eyes or clothing. In case of accidental spill or contact, wash thoroughly with water, seek medical advice if necessary.

Procedures:

1. Mix 5 volumes of the **ChIP DNA Binding Buffer** with each volume of sample (5:1). Mix briefly.
Example a): Add 250µl of the binding buffer to 50µl cell lysate following DNA shearing, reverse cross-link and Proteinase K digestion in TES (50mM Tris,pH8.0, 10mM EDTA, 1% SDS) or 0.1M $NaHCO_3$ containing 1% SDS.
Example b): Add 500µl of the binding buffer to 100µl eluent in TES or 0.1M $NaHCO_3$ containing 1% SDS buffers from chromatin-antibody-protein A agarose bead complex followed by reverse cross-link and Proteinase K digestion.
Note: For cleanup DNA fragments <100bp, use 10 volumes of **ChIP DNA Binding Buffer** instead.

2. Add 2.5µl of 3M Sodium Acetate to a) or 5µl of 3M Sodium Acetate to b) from step 1 and mix well.
Note: For cleanup DNA and Oligo from other enzymatic reaction, it is not necessary to add Sodium Acetate.

3. Load the sample mixture to **Tini Spin Column** (with collection tube) and spin in a microcentrifuge for 1 min at full speed (about 13,000 rpm). Do not load more than 350 µl of sample on Tini spin column at one time. Discard the flow through and load more sample mixture if needed.

4. Add 250µl of **Wash Buffer** (**Ethanol added)** and centrifuge for 1 min. Repeat this step one more time (optional).

5. Discard flow through and centrifuge at full speed with the lid open for 2 minutes to remove the ethanol completely. It is important to remove residual ethanol which may affect downstream applications.

6. Add 5-50 µl **distilled water** or **Elution Buffer** (preheated at 65^oC for better yield) to the **center** of the column and leave at room temperature for 5 min. Spin the column for 1 min to elute the DNA from the column.