TGuide Smart DNA Purification Kit

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TGuide Smart DNA Purification Kit

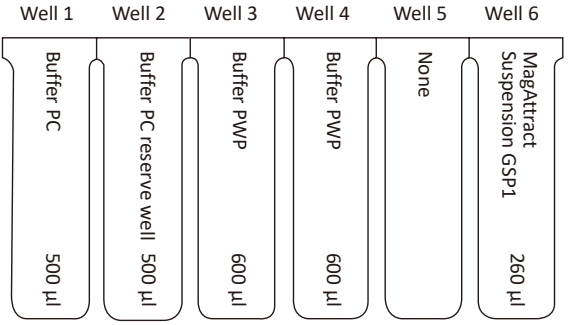
Cat. no. 4993550

Kit Contents

Contents		4993550 (48 preps)
4993543	DNA Purification Reagents	48
	Buffer TB	15 ml
4993546	TGuide Smart Tip Comb	12 pcs

Note: 4993546 is shipped and packaged separately

DNA purification reagent composition



Storage condition

The kit can be stored under dry conditions at room temperature (15-30°C) for 12 months.

Product

This product adopts an unique magnetic beads and a unique buffer system to recover DNA quickly and efficiently from TAE/TBE gel. The uniquely embedded magnetic beads have a strong affinity for nucleic acid under certain conditions. When the conditions are changed, the magnetic beads can release the adsorbed nucleic acid, to rapidly separate and purify the nucleic acid. The kit can be used to remove impurities such as protein, other organic compounds, inorganic ions and oligonucleotide primers, and recover 100 bp-15 kb DNA fragments, with a recovery rate of more than 80%.

The DNA recovered by using this kit can be used for a series of routine procedures, including digestion, PCR, sequencing, library screening, ligating, transformations and other experiments.

Features

Fast: Ultra-pure DNA can be obtained by running TGuide S16 for 40 minutes.

Diversity: Single - and double-stranded DNA fragments and circular plasmid DNA.

Efficiency: Unique magnetic beads and carefully prepared buffer make it possible to recover the largest amount of high purity target DNA.

Notes <u>Be sure to read this note before using this kit.</u>

1. When cutting gel, UV irradiation time should be controlled to avoid damage to DNA.
2. TAE electrophoresis buffer should be used if the next step is more demanding.
3. The recovery rate is affected by the initial DNA amount and elution volume. Lower initial DNA amount and elution volume will lead to lower recovery rate.

Operational steps

1. Pre-packaged single reagent

1.1 Take out a pre-packaged single sample reagent strip and mix it upside down several times to re-suspend the magnetic beads; Gently shake the reagent and magnetic beads to concentrate at the bottom of the orifice plate. Before use, remove sealing film carefully to avoid the orifice plate from vibrating and liquid spatter.

1.2 Add appropriate volume (30-100 µl) of eluting buffer TB to the 5th well of single sample reagent strip.

Noted that the less elution volume added, the higher of nucleic acid

concentration, but as well as the lower of total yield.So we recommend 60ul as the suitable elution volume. And the volume could be adjust if any special requirement.

2. Sample preparation

2.1 Gel recovery

Cut about 150 mg strips of single-purpose DNA from the agarose gel with a clean blade (removing as much as possible).

2.2 Purification of PCR product

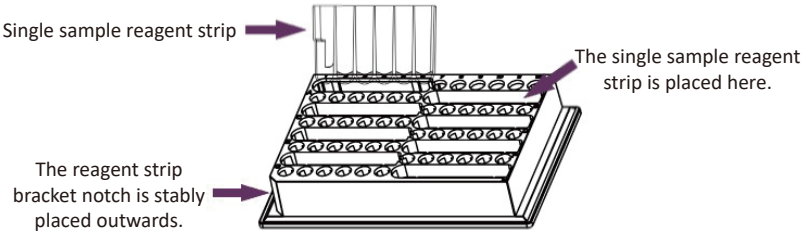
Dilute the PCR product with water to a volume of 150 µl.

Note: If the cut gel block is more than 150 mg or the volume of PCR product is more than 150 µl, the Sol Buffer PC (the 2nd well is for the spare PC solution) can be supplemented by 3 times the volume, and the total volume of the solution in the 1st well should not exceed 900 µl.

3. Operation steps of TGuide S16 Nucleic Acid Extractor

3.1 Add the above sample to the 1st well of the single sample reagent strip, Put a single reagent on the reagent tank bracket of TGuide S16 Nucleic Acid Extractor.

3.2 Place the reagent tank bracket on the base of the 96-hole plate of the TGuide S16 Nucleic Acid Extractor. Insert the Tip Comb into the slot of the Tip Comb to ensure that they are well connected and firmed.



3.3 If you use the TGuide S16 Nucleic Acid Extractor, select the corresponding program DP642 file on the on-board screen, click the icon in the lower right corner of the screen, or click the "RUN" button at the bottom of the screen to start the experiment.

The extraction process of S16 provided for DP642 is shown in the following table:

Step	Hole site	Step name	Mix time (min)	Mix speed	Dry time (min)	Volume (μl)	Temp. (°C)	Segments	Every time(s)	Magneti-zation time(s)	Cycle	Magnet speed (mm/s)
1	1	Lysis	15	3	0	650	60	1	0	0	0	--
2	6	Collect beads	0.5	8	0	260	--	5	3	0	2	2.5
3	1	Bind	5	8	0	650	--	5	3	0	2	2.5
4	3	Wash 1	2	7	0	600	--	5	3	0	2	2.5
5	4	Wash 2	2	7	6	600	--	5	3	0	2	2.5
6	5	Elution	5	8	0	50	56	5	5	0	2	2.5
7	6	Discard	0.5	5	0	260	--	1	0	0	0	--

3.4 At the end of the automated extraction process, attract the DNA out of the 5 th well of the single sample reagent strip and store it under appropriate conditions.