BehPrep Gel Cleanup Kit

Cat. No: BPGC25 *** reactions
Store at room temperature
For life science research only. Not for use in diagnostic procedures.

Contents

	25 preps	50 preps
MB Buffer	15 ml	30 ml
Spin Columns	25 pieces	50 pieces
WB Buffer	40 ml	80 ml
EB Buffer	5 ml	10 ml

Storage and stability

Spin columns of the kit are packed in closed bags and show full performance in this state at room temperature (18-25°C) until expiration date. All solutions are clear and should not be used when precipitates have formed. Warm the solutions at +15 to +25°C or in a 37°C water bath until the precipitates have dissolved. The buffers can show a slight yellow color. This will have no impact on the function of the buffer.
Spin columns are packed in closed bags, please take care that columns should be used after once opened. Please take care that columns, once opened, should be used instantly. Close bottles immediately after use.

Kit Description

BehPrep DNA gel extraction kit has been custom designed to deliver excellent performance for the purification of DA from agarose gel. This kit contains all the ingredients needed to quickly

prepare pure DNA in small-scale from agarose gel. The kit includes columns, buffers and reagents for decade agarose, DNA binding to the column matrix and low volume DNA washing. Each kit contains manual with a detailed protocol.
This kit based on technology of using silica membrane column and provides fast and easy use for user.

Important notes: please read before using

- ✓ This kit has been designed for research purposes only. It is not intended for human or diagnostic use.
- ✓ Wear gloves in all steps of procure.
- ✓ Avoid freeze/thaw cycles.
- ✓ Equilibrate samples to room temperature.
- ✓ Equilibrate all Buffer to room temperature before use.
- ✓ Homogenize all buffer before use.

Reagents and equipment required (but not supplied)

- Pipets and pipet tips (RNA and DNA free)
- 1.5 ml Microtube (RNA and DNA free)
- Vortex
- Microcentrifuge

Warnings and precautions

- ➢ Wear gloves in all steps of procure.
- ➢ Avoid contact any kit reagents with skin & eyes.
- ➢ Follow biohazard safety procedure.

Samples: Agarose Gel

Protocol

Sample preparation

1. **Gel Electrophoresis:**

- Run DNA sample on agarose gel to separate DNA fragments. Cut the gel containing the desired DNA and place it into a sterile microcentrifuge tube.

  ! Avoid more than 30 sec exposure of UV light onto the DNA.

2. Solubilization of agarose:

- Determine the weight of gel slice and add 2 volume of MB Buffer to 1 volume of gel (*A gel slice of mass 0.1g will have a volume of 200µl).*
- Add 1 volumes of Isopropanol to the sample. For example, if the wight of your gel slice is 0.1 gr, add 100 µl Isopropanol.

  ! If the percentage of the gel is more than 1.5%, add 4X of MB Buffer and 2X of Isopropanol.
- Incubate at 60°C until gel has melted completely.
- Mix occasionally to ensure complete solubilization.

DNA extraction

3. Loading to Column:

- Transfer the sample into a column (max. 1ml) assembled in a clean collection tube (provided). Centrifuge at 10,000 x g for 1 min. Discard flow through.

4. Column washing:

- Wash the column with 700µl Wash Buffer and centrifuge at 10,000 x g for 1 min. Discard flow-through. ✸
- Column drying Centrifuge the column at 10,000 x g for 1 min to remove residual ethanol. This step has to be carried out to remove all traces of ethanol as residual ethanol can affect the quality of DNA and may subsequently inhibit enzymatic reactions.

5. DNA Elution:

Place the column into a clean microcentrifuge tube. Add 30 - 100µl of Elution Buffer into the column membrane and stand for 2 min. For DNA fragments larger than 8kb, use preheated elution buffer at 65°C - 70°C for better elution efficiency. Spin at 10,000 x g for 1 min to elute DNA. Store DNA at 4°C or -20°C.

✸ Recommended: Repeat previous washing step to minimize chaotropic salt carry-over and improve A260/A230 values.

Storage of obtain sample

The obtain DNA samples can be directly use to applications such as PCR, ligation and transformation, hybridization, in vitro transcription and etc.

Obtain sample can be store at -20°C.

Trouble shooting

observation	Possible cause	suggestion
Low purification	High 260/230 OD ratio	Repeat washing step

Specifications

- High recovery: recovery of DNA fragments is up to 80%
- High quality: purify DNA fragments have high quality and show reliable performance in PCR, qPCR, sequencing, and labeling, etc.
- Column Binding Capacity: 10 µg
- Size of DNA Purified 70 – 20,000 bp
- Minimum Elution Volume: 30 µL
- Time to Complete 10 Purifications: 20 minutes

Kit limitation

BehPrep kit has the capacity of efficient purification of DNA ranging from 70bp to 20kbp and the recovery efficiency is maximally 95%.

Quality control

All the component and lot numbers (Lot NO.) of each kit in the quality control unit of Vista Biotechnology Behgene have been evaluated according to predetermined criteria to ensure the accuracy of the product.

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