DNAbioTech
Life Science

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Magnetic Bead HPV Genomic DNA Extraction Kit

Catalog no.: DB4016

(128 rxn)

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Diba NoAvaran Azma Company

Customer and technical support

If you have any questions, do not hesitate to ask! DNAbiotech would be highly appreciated for any comment(s).

About this user manual

It is recommended for first-time users to read the detailed protocol sections of the user manual before using these products. Experienced users, however, may refer to the Protocol-at-a-glance instead. The Protocol-at-a-glance is designed to be used only as a supplemental tool for quick referencing while performing the purification procedure.

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General description

DNAbiotech's "**Magnetic Bead HPV Genomic DNA Extraction Kit"** is developed for DNA extraction from HPV, cultured cells, serum, plasma, or other body fluids. Lysis is achieved by incubation of HPV in a solution containing large amounts of chaotropic ions in the presence of Proteinase K and magnetic beads.

Kit specifications

- Magnetic Bead HPV Genomic DNA Extraction is designed for the rapid isolation of highly pure genomic DNA from standard LBC.

-The kits allow purification of highly pure genomic DNA with a typical concentration of 30–50 ng per µL.

-The obtained DNA is ready-to-use for subsequent reactions like PCR, Southern blotting, or any kind of enzymatic reaction.

Warranty: if desired results do not obtain please contact us. The product is under DNAbiotech support**.**

Quality Control

In accordance with DNAbiotech Co. Management System, each part of the **kit** is tested against predetermined specifications to ensure consistent product quality**.**

Safety Notes

The buffers included in **the kit** contain irritant which is harmful when in contact with skin or eyes, or when inhaled or swallowed. Care should be taken during handling. Always wear gloves and eye protectors, and follow standard safety precautions.

Lysis buffer in columns 1 and 7 contains chaotropic agents. It can form highly reactive compounds when combined with bleach. Do NOT add bleach or acidic solutions directly to the sample-preparation waste**.**

Storage of HPV samples

For the extraction of genomic DNA from LBC media using DNAbiotech Genomic HPV kit the HPV samples can be stored at +4 °C for 3 days. HPV samples stored at +4 °C for up to 5 days, will still allow DNA isolation. However, DNA yield and quality will slowly decrease due to the prolonged storage of HPV samples under these conditions. HPV stored frozen for years is well suited for DNA isolation for up to 4 months. However, the highest yields and quality of DNA are obtained from fresh HPV. So use fresh HPV. Do not use LBC samples that contain formalin.

Kit Components

No.	Name	cat #: DB9822-50rxn
1	*Handbook protocol*	1
2	Prefilled plates and the rod cover	8 set of 16 rxn
3	Proteinase K* (Lyophilized)	As needed
4	Proteinase K buffer*	As needed

* Proteinase K buffer should be mixed with lyophilized proteinase K and then stored at –20° C for up to 12 months.

Storage condition:

Shipping: RT

Storage: The reconstituted proteinase K should be stored at – 20° C. All other kit components can be stored at room temperature (18–25 °C) and are stable for up to one year.

Protocols of Genomic DNA purification

Before experiment notes:

* Check if Proteinase K is prepared according to the procedure.

*Preheat Elution Buffer BE to RT.

1. Shake the LBC bottle (sample) and transfer 1 ml of LBC into a sample vial (provided) and centrifuge it at 10000-12000 *x g* for 4 min, discard 800 µl of the supernatant and keep 200 µl of it.
2. hold the plate with one hand and pool off the aluminum foil with the other hand.
3. Add 20 ul of proteinase k to lysis well. (columns 1 and 7, from A to H)
4. mix the HPV well and add 200 ul of it to lysis wells.
5. insert the rod cover into a device and run the following program:

Step No.	Well No.	Name	Wait (min)	Mix time	Vol.	Mix speed	Mag Time (s)	Temp
1	**2**	Bead	0	**1 min**	200	2 of 3	40	0
2	**1**	Lysis	0	**12 min**	500	2 of 3	45	**56° C**
3	**3**	W 1	0	**2 min**	500	2 of 3	45	0
4	**4**	W 2	0	**40-50 Second**	500	2 of 3	45	0
5	**6**	Elution	**1**	**6 min**	60	**1 of 3**	120	**80° C**
6	**2**	Bead	0	**10 Second**	200	2 of 3	0	0

5. when the process is finished the eluted DNA is in columns 6 and 12. Transfer them carefully into RNase-free vials and store them at -20° C for the following uses.

Important NOTE 1: there are different types of such devices on market. Please contact us for getting the best results according to your extractor device.

NOTE 2: there would be some reaming magnetic beads in EB wells sometime. This point is not important in the following test, however, remain the transferred DNA in the vial for 5 minutes. During this time the magnetic beads precipitated.

Troubleshooting

Problem	Possible cause	suggestions
No or Low DNA yield Or the poor quality of DNA	*Low concentration of leukocytes in sample*	Prepare buffy coat from the HPV sample: Centrifuge HPV at room temperature (4000 x *g*; 10 min). Three different layers will be visible after centrifugation. Leukocytes are concentrated in the intermediate layer (= buffy coat).
	RNA in sample	If RNA-free DNA is desired, add 20 µL RNase A solution (10 mg/mL) (cat #: DB9700) before the addition of lysis buffer.
	Old or clotted HPV samples processed	Used fresh sample

Contact Information

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