Lot.
Ref. SB0100

MANUAL

Expiry date: 1 year
Store at 4^0C

GENEKAM DNA ISOLATION KIT (MAGNETIC BEADS) **-Only for research use-**
-To be used by a technical person-

Contents:

- Tube A (Lysis buffer)
- Tube K (Proteinase K)
- Tube B (Washing buffer 1)
- Tube M (Magnetic beads)
- Tube E (Elution buffer)
- Tube C (Washing buffer 2)
- Tube G (Diluting buffer)

Chemicals and equipments needed:

- Pipettes and Pipette tips
- Magnetic rack with magnet
- Different 1.5 ml / 2ml tubes for isolation
- RNase free tube
- Heating block
- Absolute Ethanol
- Centrifuge (optional)

Procedure:

Standard Step (this can be used with any sample):

1. Add 100µl plasma / serum / blood / cell culture fluid / vaccine / body fluid and 25µl of tube K together in one tube. (check the capacity of your magnetic rack!)
2. To this, add 300µl Tube A (lysis buffer). Vortex it and keep it at 56 ^{0}C for 15 minutes.
3. Add 400µl of Tube G to it. Vortex it and keep it at 70 ^{0}C for 10 minutes.
4. Add to it 400µl molecular absolute ethanol. Vortex it (in such a way that there should be no blood clots in the solution!)
5. Add 10µl of tube M (magnetic beads) to it.
6. Incubate at room temperature for 10 minutes.
7. Separate the beads with magnetic rack. Discard the supernant through removing with pipettor (Once again, use pipette to remove supernant!).
8. Add 500µl of tube B to resuspend the beads. Separate beads with magnet. Discard the supernant with pipettor.
9. Add 500µl of tube C to resuspend the beads. Separate the beads with magnet and discard the supernant with pipettor.
10. Add 200µl of tube C to resuspend the beads. Separate the beads with magnet and discard the supernant with pipettor.
11. Add 75 or 100µl of tube E and Resuspend the magnetic beads. Incubate it at 70 ^{0}C for 3 minutes (during heating, remix it or reshake it). Separate the beads with magnetic rack und store the supernant containing DNA in tube.)

Hint: During the isolation from blood, there should be no red color in isolated

Isolation from buccal swabs / tissue: Add 300µl of Tube A and buccal swab / tissue. Add to it 25µl from Tube K. Vortex it and keep it at 56 ^{0} C for 15 minutes.
Add to it 400µl from Tube G. Vortex it and keep it at 70 ^{0}C for 10 minutes. Vortex it and centrifuge it at 10000 rpm for 20 or 30 seconds. Pipette out the fluid in another tube in order to remove the buccal swabs or rest tissue as magnetic beads may stick to them (if tissue is fully dissolved proceed to step 4 as no need to pipette out the fluid in another tube. Now proceed with step 4 i.e. adding ethanol and till elution of DNA.

If you should find any mistakes, please let us know. Thank you.

Suggestion: **This manual has been written specifically for beginners, hence persons with experience in PCR must use their experience to keep each step as small as possible e.g. you should calculate the amount of the needed chemicals, before starting with testing.** **Last update: 21-11-2018** **v1.2**	**Genekam Biotechnology AG** **Duissernstr. 65a** **47058 Duisburg** **Germany** **Tel. (+49) 203 / 555858-31,-32,-33** **Fax (+49) 203 / 35 82 99** **anfrage@genekam.de** **http://www.genekam.de**