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Auto Magbead Viral DNA/RNA Kit (pre filled)

Product Number: DRK225

Shipping and Storage

Store at 4-30℃ and room temperature transportation.

Components

Component	DRK225 48rxns	DRK225 96rxns
96 well prefilled plate	6×8 prep/ plate	6×16 prep/ plate
8 Tip Combs	1×6/pack	1×12/pack
Protease K (optional)	2×1.25mL	3×1.25mL

Note:1)The default protease K is not provided. If needed, please make a note when placing an order.

2)Self provided instruments:AE2100 Nucleic acid extractor

Description

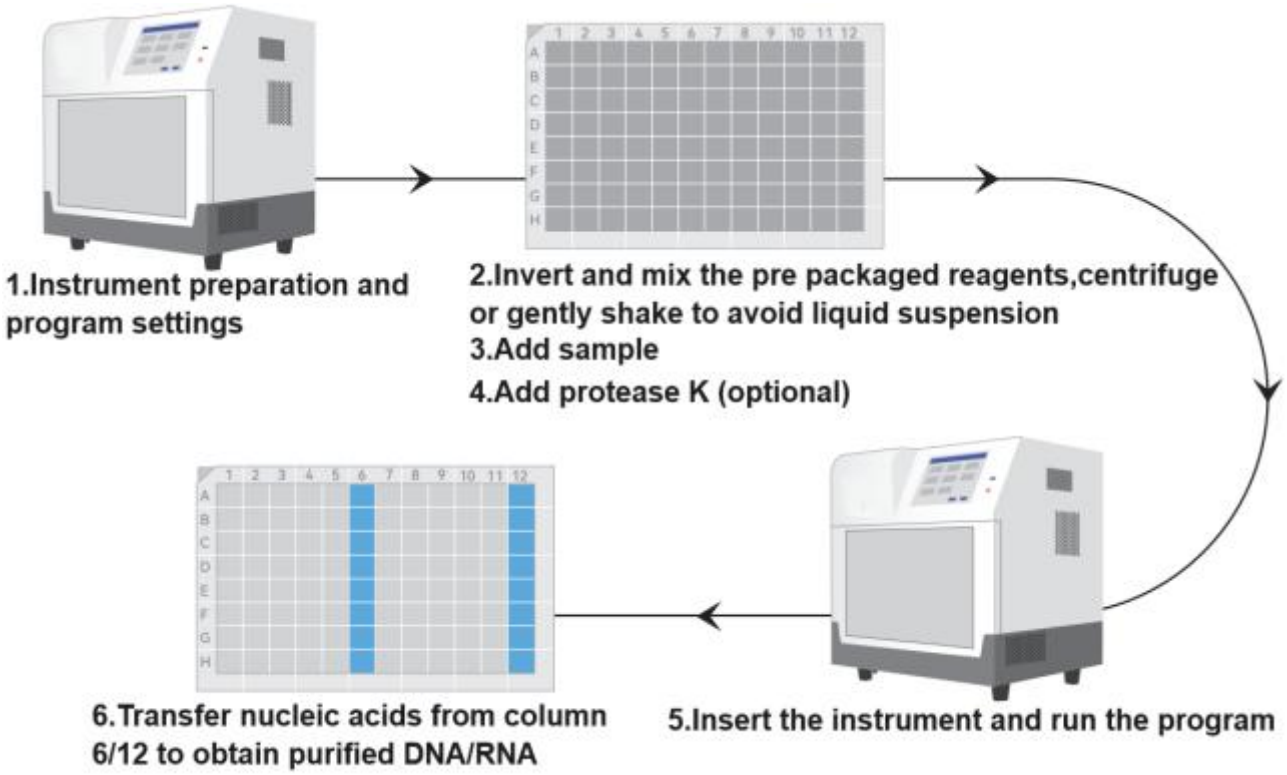
The reagent kit provides a method for extracting viral nucleic acid from samples such as swabs, tissues, feces, blood, serum, and plasma. It is paired with an automated nucleic acid extractor for high-throughput extraction experiments, and the operation is simple. The reagent kit uses superparamagnetic nano magnetic beads and a unique buffer system to efficiently and specifically bind the nucleic acid in the lysis solution to the magnetic beads. The obtained nucleic acid has high purity, stable quality, and does not contain proteins, nucleases, or impurities that inhibit downstream applications. It can be used for various routine operations, including PCR and fluorescence quantitative PCR, NGS,Downstream related experiments such as biochip analysis

Note

1. Samples should avoid repeated freeze-thaw cycles, otherwise it may lead to a decrease in the amount of nucleic acid extracted.
2. The extracted product of this reagent kit is viral DNA/RNA, and special attention should be paid to preventing nucleic acid degradation during the operation process. The vessels and samplers used should be specialized, and disposable consumables such as centrifuge tubes and gun heads need to be sterilized under high pressure. Operators should wear powder free gloves, masks, etc.
3. Before using with AE2100 nucleic acid extraction, the nucleic acid extractor needs to be disinfected with ultraviolet light.
4. Before use, please read the instructions carefully and strictly follow the instructions. Clinical samples should be taken in an ultra clean table or biosafety cabinet.
5. After extraction, there may be residual magnetic beads. When aspirating nucleic acids, it is advisable to avoid inhaling magnetic beads as much as possible.
6. Properly dispose of the samples and reagent materials used, thoroughly clean and disinfect the operating table.
7. If long-term storage is required, please place protease K at -20°C.
8. If protease K is used for extraction, please add the sample first before adding protease K.

Protocol

Flow diagram



1. Sample pre-processing
   1.1. Extract whole blood, serum and other samples, and directly aspirate 300μL.
   1.2. Extract saliva samples, which can directly extract 300μL; If the sample contains a lot of impurities, it can be left to stand or centrifuged briefly to absorb 300μL of the supernatant.
   1.3. Extract swab samples, suspend dry swab samples with PBS or physiological saline, take 500μL of PBS or physiological saline and add it to a 2mL centrifuge tube. Add one dry swab, vortex shake and take 400μL for loading, shake and mix wet swab samples, and take 400μL for extraction.
   1.4. Extract environmental samples of gauze, which can be directly extruded from wet gauze and aspirated to 300μL; If the sample contains a lot of impurities, it can be left to stand or centrifuged briefly to absorb 300μL of the supernatant.
   1.5. Extract animal tissue samples, take 20-50mg of tissue samples, grind them thoroughly with 500μL of physiological saline or PBS, centrifuge at 12000 rpm for 1 minute, and extract 400μL of supernatant.
   1.6. Extract fecal samples, take 1g of fecal samples and place them in a 15mL centrifuge tube (self provided). Add 10mL of fecal virus preservation solution or PBS, vortex and mix well, centrifuge at 8000rpm for 3 minutes, and take 300μL of supernatant.
2. Take out the pre packaged reagent, mix it upside down several times to resuspend the magnetic beads, gently shake the orifice plate to concentrate the reagent and magnetic beads at the bottom of the orifice plate to avoid liquid hanging (or use an orifice plate centrifuge at 500rpm × 1min for centrifugation). Before use, carefully peel off the aluminum foil sealing film to avoid vibration of the orifice plate and prevent liquid splashing.
3. Add 300μL of sample to columns 1 and 7 of the 96 well plate, with a recommended sample size of 400μL for swab samples (sample needs to be balanced to room temperature) and 30μL of protease K (optional).
4. Place the 96 well plate on the base of the 32 channel automatic nucleic acid extractor, and insert the magnetic rod sleeve into the 32 channel automatic nucleic acid extractor.
5. Edit and run the extraction program according to the following table:

Number	Hole position	Name	Waiting time (min)	Mixing time	Magnetic attraction time (sec)	Mixing speed	System (μL)	Temperature (°C)
1	3	Magnetic	0	00:20	15	Fast	500	0

		attraction						
2	1	Cracking	0	03:00	45	Fast	800	90
3	2	Rinse 1	0	01:00	15	Fast	500	
4	3	Rinse 2	0	01:00	15	Fast	500	0
5	4	Rinse 3	0	01:00	15	Fast	500	0
6	6	desiccation	1	00:00	0	Fast	60	0
7	6	elution	0	02:00	45	Fast	60	90
8	2	Demagnetic beads	0	00:05	0		500	0

6. After the program runs, remove the 96 well plate and transfer the eluent from columns 6 and 12 to a new centrifuge tube for long-term storage at -20°C.