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DNA Viral Genome Extraction Kit

Cat. No.: D2400

Package: 50T/100T

Storage: At Room temperature(15℃-25℃) in dry place for 1 year.

Kit Contents

Component	D2400-50T	D2400-100T
Proteinase K	1 ml	1 ml × 2
Solution V	25 ml	50 ml
Washing Buffer	15 ml	15 ml × 2
Elution Buffer	10 ml	20 ml
Adsorption Column	50 Units	100 Units
Collection Tube	50 Units	100 Units
Instruction	1 Piece	1 Piece

Note: Proteinase K should be kept at -20℃.

Product Description

DNA Viral Genome Extraction Kit is suitable for extracting of Viral genomic DNA from serum, cell supernatant, lymph fluid, but it isn't suitable for extracting of Viral genomic RNA. The extracted DNA is large yield and good integrity, it can be directly used for a variety of routine operations, including enzyme digestion, PCR, library construction, Southern blot, etc.

Protocol

Add fresh opened absolute ethanol in Washing Buffer before use, volume is based on the label of bottle as a reference. Put cap back on bottle and shake well. All centrifuge steps are performed at room temperature(15℃-25℃).

1. Take viral supernatant 0.5ml, centrifuge at 12,000rpm for 5min. Discard precipitate.
2. Add 20μl Proteinase K(10mg/ml) into the supernatant, mix thoroughly, incubate at 65℃ for 10-20min. Invert centrifuge tube several times to mix during incubating.
3. Add 500μl Solution V, mix thoroughly, add 400μl absolute ethanol, mix thoroughly. White precipitate may form, it doesn't affect DNA extraction. Add the mixture into Adsorption Column, place at room temperature for 2min. The maximum volume of Adsorption Column is 750μl, add mixture in twice, each 700μl.
4. Centrifuge at 12,000rpm for 2min. Discard waste liquid. Put Adsorption Column into Collection Tube.
5. Wash Adsorption Column with 600μl Washing Buffer(added absolute ethanol), centrifuge at 12,000rpm for 1min, discard waste liquid. Put Adsorption Column into Collection Tube.
   Note: Washing Buffer must be diluted with absolute ethanol before use.
6. Repeat step 5 with another 600μL Washing buffer.

7. Centrifuge at 12,000rpm for 2min. Incubate at room temperature(15℃-25℃) or 50℃ warm-box for a few minutes to remove residual Washing Buffer in Adsorption Column, otherwise ethanol in Washing Buffer will affect the follow-up experiments such as enzyme digestion and PCR.
8. Put Absorption Column into a new clean centrifuge tube, drop 50-100ul Elution Buffer preheated at 65℃ water bath in center of adsorption membrane(tip don't touch membrane), place at room temperature(15℃-25℃) for 5min, centrifuge at 12,000rpm for 2min.
9. Add Elution Buffer got from step 8 centrifuge tube to Adsorption Column, place at room temperature(15℃-25℃) for 2min, centrifuge at 12,000rpm for 2min, obtain high quality viral genomic DNA .

Notes

1. Proteinase K should be stored at -20℃.
2. Avoid repeated freeze-thaw cycles of sample, which will lead to extracted DNA fragments are small and less.
3. If there is precipitate in Solution V, redissolve at 65℃ water bath, precipitation will disappear, it does not affect DNA extraction.
4. Volume of Elution buffer shouldn't be less than 50ul, if volume is too small, it will affect recovery efficiency. pH value of the Elution buffer may also affect elution efficiency, if using water as Elution buffer, please ensure pH8.0(it can use NaOH to adjust pH value), elution efficiency will be reduced if pH value is lower than 7.0. Extracted DNA should be stored at -20℃ to prevent DNA degradation.
5. DNA concentration and purity detection(higher concentration): size of obtained viral genomic DNA fragment is related with storage condition, virus type and other factors. When OD_{260}=1, it is equal to 50μg/ml of double-stranded DNA and 40μg/ml single-stranded DNA. OD_{260} / OD_{280} ratio should be 1.7 to 1.9, if deionized water is used instead of Elution buffer during elution operation, ratio will be lower, because pH value and ion will affect absorbance, but it does not mean low purity.
6. If virus content is too low, the final extracted genomic DNA may not be detected by electrophoresis, but PCR will have good result.

Related Products

T1050	5×TBE Buffer
T1060	50×TAE Buffer
M1400	1kb DNA Ladder
D1200	DNA Extraction Kit
M1060	D2000 DNA Ladder
D1010	6×DNA Loading Buffer
D1100	Plasmid Extraction Mini Kit
D1110	Plasmid Extraction Maxi Kit
D1160	Yeast Plasmid Extraction Kit

D1250	Poly-Gel DNA Extraction Kit
G8142	GoldView II Nuclear Staining Dyes
D1600	Bacterial Genomic DNA Extraction Kit
D1140	Free Endotoxin Plasmid Extraction Mini Kit
D1120	Gram-positive Bacterium Plasmid Extraction Mini Kit