MGIEasy Nucleic Acid Extraction Kit

Easy to use

- The main reagents prepacked into 96 well plate, the hand on time is very short.

Excellent yield linearity

- The linearity R^2 up to 0.98.

High efficiency

- The nucleic acid extracted from 50 IU/mL sample can be detected by RT-PCR.

Introduction

The Kit is designed for extracting high purity viral nucleic acid from swab, blood, plasma, and body fluid samples, using special lysis buffer and new nano-magnetic beads, which make the TAT very short, the main reagents prepacked into 96 well plate, and compatible with MGISP-NE32RS perfectly. the extracted product can be used for PCR, RT-PCR and Sequencing.

Performance

Excellent yield linearity

We extracted the diluted H1N1 and influenza B throat swab samples using this kit. The extracted product tested by RT-PCR, we found the linearity between Ct value and dilution concentration R-squared is over 0.98, which means the kit has excellent yield linearity.

Table 1 RT-PCR result of H1N1 and influenza B throat swab dilution

Sample ID	Species	Dilution (copies/mL)	Dup-1 Ct value	Dup-2 Ct value	Average Ct value
1	H1N1	10^6	22.4	22.18	22.29
2	H1N1	10^5	25.47	25.37	25.42
3	H1N1	10^4	28.85	28.7	28.775
4	H1N1	10^3	32.1	32.31	32.205
5	H1N1	10^2	37.14	38.04	37.59
6	influenza B	10^6	21.81	22.25	22.03
7	influenza B	10^5	24.89	25.23	25.06
8	influenza B	10^4	28.42	28.71	28.565
9	influenza B	10^3	31.8	31.98	31.89
10	influenza B	10^2	35.96	36.62	36.29

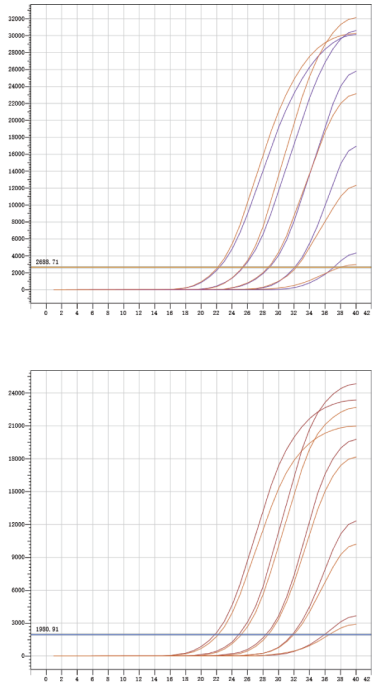

Figure 1 RT-PCR curve

High accuracy for RT-PCR using the product extracted by this kit

We extracted the H1N1 and influenza B throat swab samples using this kit. The extracted product tested by RT-PCR, we found the result consistent with the clinical result.

Table 2 RT-PCR result（Cutoff: Ct＜38）

Sample ID	Species	Ct value	Clinical result	Sample ID	Species	Ct value	Clinical result
1	H1N1	28.8	Positive	15	influenza B	20.0	Positive
2	H1N1	35.3	Positive	16	influenza B	27.2	Positive
3	H1N1	31.1	Positive	17	influenza B	26.8	Positive
4	H1N1	33.3	Positive	18	influenza B	26.5	Positive
5	H1N1	31.5	Positive	19	influenza B	undetected	Negative
6	H1N1	37.9	Positive	20	influenza B	22.2	Positive
7	H1N1	24.0	Positive	21	influenza B	23.9	Positive
8	H1N1	31.8	Positive	22	influenza B	30.6	Positive
9	H1N1	23.4	Positive	23	influenza B	25.6	Positive
10	H1N1	31.3	Positive	24	influenza B	25.6	Positive
11	H1N1	undetected	Negative	25	influenza B	31.4	Positive
12	H1N1	24.0	Positive	26	influenza B	29.9	Positive
13	H1N1 positive control	23.9	–	27	influenza B positive control	24.1	–
14	H1N1 negative control	undetected	–	28	influenza B negative control	undetected	–

High efficiency

The diluted HCV plasma samples extracted by MGI and QIAGEN kit. The extracted product tested by RT-PCR. The result indicate MGI's kit has the similar efficiency to QIAGEN's kit.

Table 3 RT-PCR result

Concentration	Ct-MGI	Ct-QIAGEN
1E5 IU/mL	27.33	27.48
1E4 IU/mL	30.45	30.86
1E3 IU/mL	33.99	34.28
1E2 IU/mL	37.35	36.95
1E2 IU/mL	37.61	36.66
50 IU/mL	38.19	38.44
50 IU/mL	37.87	39.01

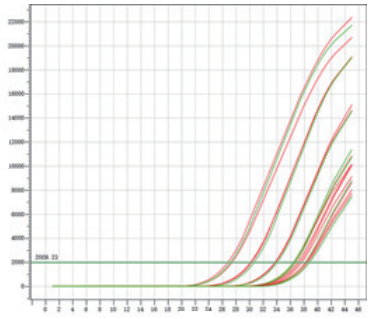

Figure 2 RT-PCR curve

Product Information

Name	MGIEasy Nucleic Acid Extraction Kit
Specification	32 RXN
Model	OP02-32
Certification	RUO
Storage	0~8℃
Sample type	Swab, plasma，blood，body fluid
Input volume	300 μL
Elution volume	80 μL
Compatible instrument	MGISP-NE32
TAT	35 minutes
Application	PCR,RT-PCR,Sequencing

Order information

Reagent

Name	Cat.No.	Certification
MGIEasy Nucleic Acid Extraction Kit	1000023774	RUO

Instrument

Name	Cat.No.	Certification
MGISP-NE32RS Automated Nucleic Acid Extractor	950-000020-00	RUO

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