

Galenvs magnetiQ Viral RNA Extraction Kit (VR1010 – 100 ASSAY KIT; VR0250 – 250 ASSAY KIT)

Comparison with Thermo MagMax Kit on Automated KingFisher Platform

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PROTOCOL – GALENVS VS THERMO COMPARISON ON KINGFISHER

Galenvs magnetiQ Viral RNA extraction kit was run on the Thermo KingFisher automated platform. For Galenvs buffer/reagents, the automated protocol washing steps – according to Galenvs protocol – were programmed into the KingFisher platform.

Equivalent samples extracted using MagMax 96 viral RNA kit. Extractions tested in triplicate using SARS-2 E and MS2 detection sets by RT-qPCR.

100 uL of sample (dilutions of gamma irradiated SARS-2 in VTM, original sample also spiked with MS2 phage) to which 400 uL of lysis buffer was added and placed onto machine along with wash buffer aliquots.

Tubes look like illustration below, one strip of 5 tubes is used per sample available plus tip comb. This figure shows the plastics to do 5 samples.



Mixed for 5 minutes, captured 300 ul of wash 1, captured 300 ul of wash 1, captured 450 ul of wash 2, captured 1 minute dry Elute in 90 ul

COMPARISON RESULTS





Sample	Target	Ct mean	SD
GA 0	E	18.63	0.01
GA 0	MS2	18.73	0.09
GA -1	E	21.97	0.02
GA -1	MS2	22.18	0.07
GA -2	E	25.12	0.07
GA -2	MS2	25.37	0.15
GA -3	E	28.54	0.12
GA -3	MS2	28.81	0.19
GA -4	E	32.12	0.46
GA -4	MS2	32.27	0.09
MM 0	E	19.39	0.01
MM 0	MS2	18.94	0.14
MM -1	E	22.25	0.02
MM -1	MS2	22.32	0.05
MM -2	E	25.63	0.05
MM -2	MS2	25.83	0.06
MM -3	E	28.87	0.16
MM -3	MS2	29.19	0.13
MM -4	E	32.74	0.64
MM-4	MS2	32.90	0.08

CONCLUSIONS

- Galenvs viral RNA extraction kit was more efficient that Thermo MagMax Viral RNA kit on Thermo's own KingFisher automated platform
 - This was demonstrated for SARS-2 and MS2 spiked samples in VTM at various concentrations
- This shows that Galenvs buffer/reagents can be used in a plug & play fashion on the automated KingFisher platform



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