MicroLYSIS-RNA
Vs Extraction

Extraction using columns or beads has been considered the method for preparing RNA for reverse transcription and PCR amplification of SARS-CoV-2

But not any more!

MicroLYSIS RNA has been shown to quickly and easily release RNA in to a buffer that is ready and excellent for reverse transcription and PCR amplification of SARS-CoV-2

Plus there are many other benefits too:

	MicroLYSIS RNA	**Extraction**
Direct to Reverse Transcription and PCR amplification (RT-qPCR)	Due to our proprietary buffers, RNA that is released in to MicroLYSIS RNA is in an excellent format and solution for Reverse Transcription and PCR amplification.	Sample methods in extraction generally use harsh chemicals that are prohibitive to reverse transcription and PCR amplification.
RNA Stability	We have demonstrated that RNA is stable in MicroLYSIS RNA for long periods – well over two months at 4˚C.	Post extraction RNA is eluted in to water or TE buffer or similar. These then need to be frozen to maintain RNA.
Speed	**Quick 15 minute method**. Although incubation times can be extended without loss of RNA – so no rush either.	Extraction can be time consuming and in need of multiple steps. There are many instruments that automate the processing steps. These are often expensive to buy and require proprietary plasticware that increase the cost of extraction. Manual methods, on the other hand, are time consuming and labor intensive.
Ease of Use	One tube, heat, add to reaction – simple!	Extract, lots of tubes, pipetting which is time consuming if manually done and expensive if automated.
Pipette tips / plastic ware	**Large savings**. Only requires use of one pipette tip to transfer the lysis supernatant to the PCR tube.	Extraction requires use of multiple tubes, reagents such as fresh alcohols, many pipette tips.
Additional reagents required	None.	Requires different alcohols (ethanol IPA), elution buffers and rehydration solution.
sensitivity	Excellent Sensitivity **-** comparable Ct results to extraction in independent testing for both dry swab & saliva.	
Extract later	You can use the lysate later to extract positive samples to go through to sequencing. You don't lose RNA using MicroLYSIS RNA. With the RNA stable, you can always come back and extract for sequencing etc. But you extract a fraction of the number of samples.	

Loss of RNA	**No RNA loss w**ith MircoLYSIS RNA. All of the RNA stays within the tube and remains in suitable buffer.	While processing through extraction methods, there is always a potetential for loss of RNA template. This can be through washing steps or bead / filter limitations.
Cost	MicroLYSIS RNA is cheaper than extraction!	More expensive than MicroLYSIS RNA and can require additional, costly automation.
Environment	One tube, one pipette tip.	Many tubes and many pipette tips. Plus, use of harsh chemicals.