Supplementary Information

Table S1. Sequences of DNA primer for the synthesis of dsDNA templates for *in vitro* RNA synthesis

Target	Primer	Sequence (5′ to 3′)
5′-LysCUU	Forward	GCTTAATACGACTCACTATAGCCCGGCTAGCTCAGTCGGTAGAGCATG
	Reverse	CCGACCCGAGTCCCATGCTCTACCGACTGAGCTA
5′-HisGUG	Forward	GCTTAATACGACTCACTATAGCCGTGATCGTATAGTGGTTAGTACTCTG
	Reverse	CCGACCCCAACGCAGAGTACTAACCACTATACGATC
5′-GlyGCC	Forward	GCTTAATACGACTCACTATAGCATTGGTGGTTCAGTGGTAGAATTCTCG
	Reverse	CCGACCCGCAGGCGAGAATTCTACCACTGAACCA
HDV ribozyme	Forward	TAATACGACTCACTATAGGGCATCTCCACC
	Reverse	GAAAAGTGGCTCTCCCTTAGCCATCCGAGTGCTCGGATGCCCAGGTCGG ACCGCGAGGAGGTGGAGATGCCC

Table S2. Sequences and concentrations of TaqMan probes/primers for multiplex TaqMan RT-qPCR

Group	Target	Probe	Sequence (5′ to 3′)	Concentration (nM)
1	5′-HisGUG	Forward	GCTCGCCGTGATCGTATAGT	200
		TaqMan	/5HEX/TAGTACTCT/ZEN/GCGTTGGAACACTGCGTTTGC/3IABkFQ/	200
	5′-GlyGCC	Forward	GCATTGGTGGTTCAGTGGT	200
		TaqMan	/56-TAMN/ATTCTCGCCTGCGAACACTGCG/3IAbRQSp/	200
	Spike-in*	Forward	GAGGCAAGCCCGACGT	200
		TaqMan	/56-FAM/GATTGTCCG/ZEN/CGAACACTGCGT/3IABkFQ/	200
	5S rRNA*	Forward	TACGGCCATACCACCCTGAAC	200
		TaqMan	/56-FAM/CGGGTGCTG/ZEN/TAGGCTTTGAACACTGCGTT/3IABkFQ/	50
2	5′-LysCUU	Forward	GCCCGGCTAGCTCAG	200
		TaqMan	/5HEX/AGAGCATGG/ZEN/GACTCGAACACTG/3IABkFQ/	200
	Spike-in*	Forward	GAGGCAAGCCCGACGT	200
		TaqMan	/56-FAM/GATTGTCCG/ZEN/CGAACACTGCGT/3IABkFQ/	200
	5S rRNA*	Forward	TACGGCCATACCACCCTGAAC	200
		TaqMan	/56-FAM/CGGGTGCTG/ZEN/TAGGCTTTGAACACTGCGTT/3IABkFQ/	50

All synthetic primers and TaqMan probes used in this study were synthesized by Integrated DNA Technologies (the abbreviations within the sequences are according to the company). For TaqMan RT-qPCR, universal reverse primer (5′-GATCGTCGGACTGTAGAACTC-3′) was used at 600 nM concentration in RT-qPCR reaction mixture. TaqMan probes contain hexachlorofluorescein (HEX), carboxytetramethylrhodamine (TAMRA), and 6-

carboxyfluorescein (FAM) as the fluorophore and ZEN/Iowa Black as the quencher. *As a control, either spike-in RNA (for plasma RNAs) or 5S rRNA (for cellular RNAs) was quantified. Spike-in RNA and 5S rRNA cannot be quantified simultaneously.