

Transcription, Reverse Transcription, and Analysis of RNA Containing Artificial Genetic Components

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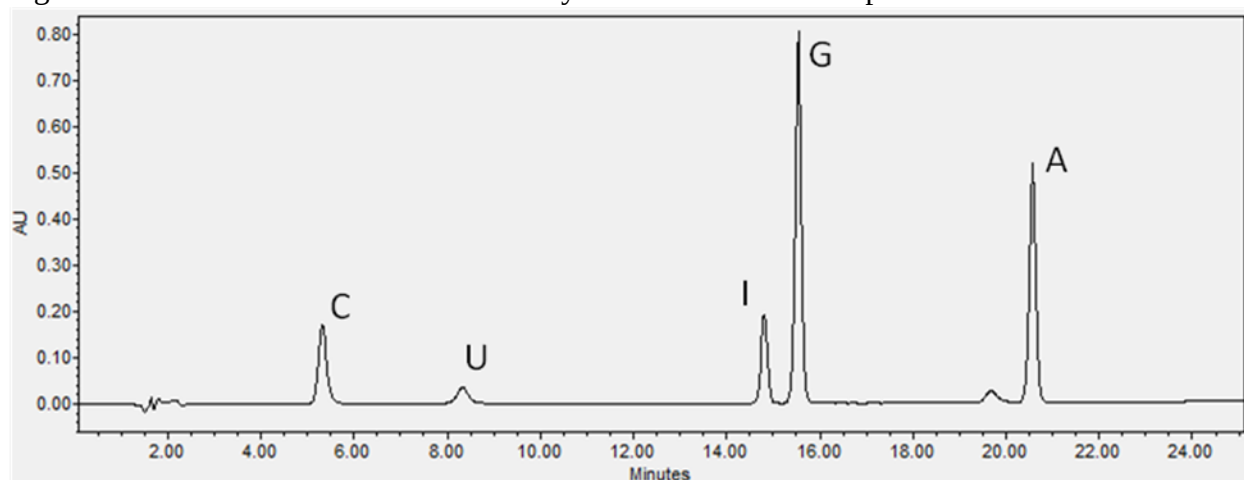
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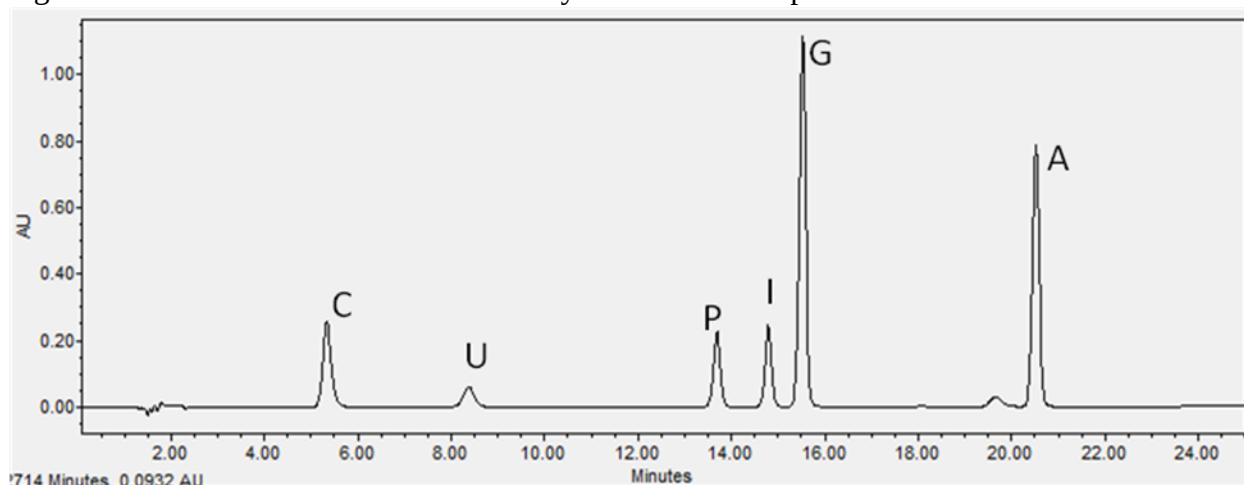
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Figure S1. HPLC trace and nucleoside analysis of standard transcript



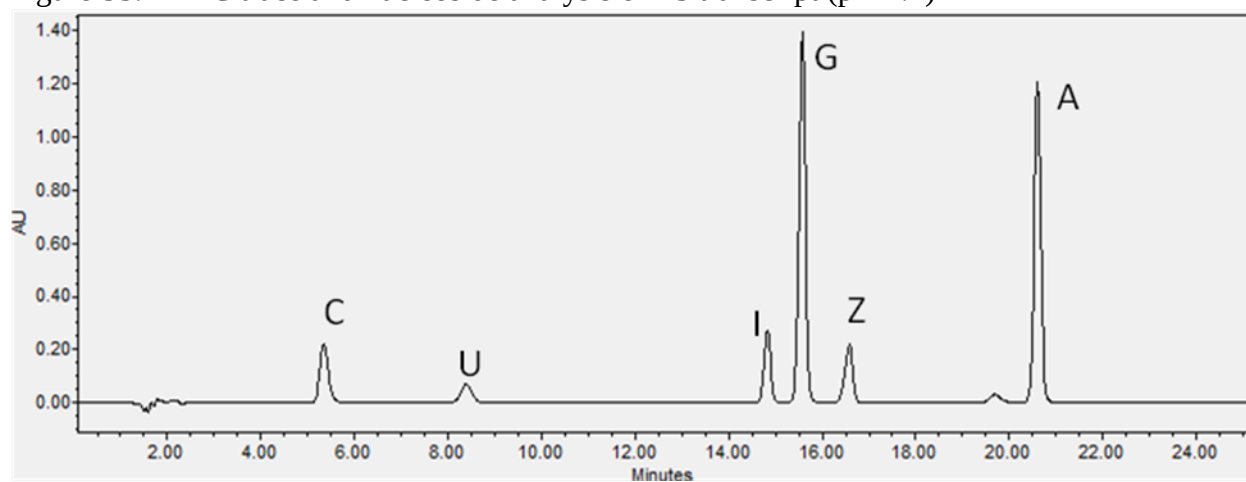
Detected nucleoside	HPLC peak area	Normalized peak area	Detected number of nucleosides	Detected number of nucleosides (I+A=total A)	Number of nucleosides in the full length oligomer
I	3032	2858	4.64	10.86	12
A	5136	3836	6.22		
C	2067	3302	5.35	5.35	5
G	7400	7400	12.00	12.00	12
U	523	607	0.98	0.98	1
Z					
P					
Total				29.19	30

Figure S2. HPLC trace and nucleoside analysis of P3 transcript



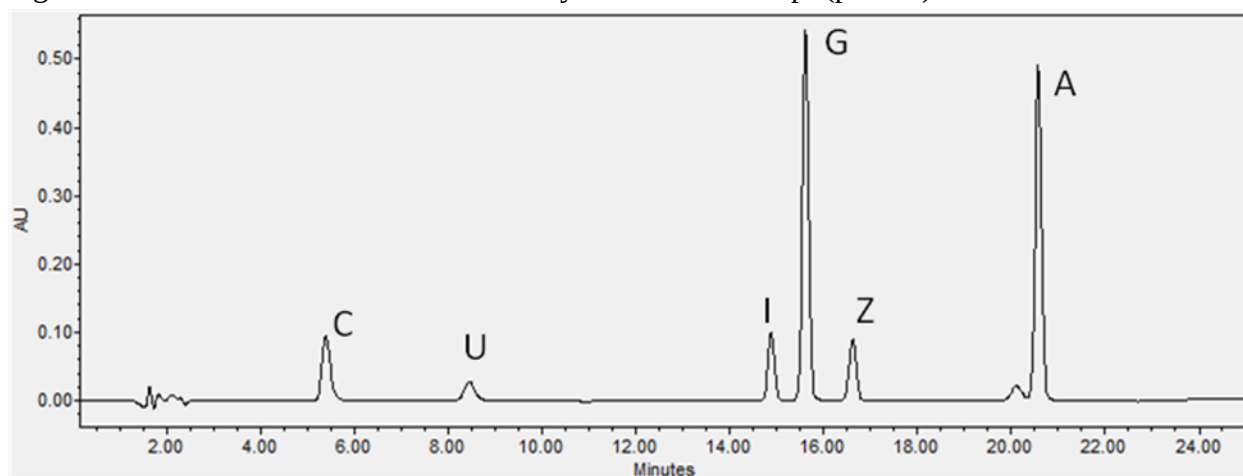
Detected nucleoside	HPLC peak area	Normalized peak area	Detected number of nucleosides	Detected number of nucleosides (I+A=total A)	Number of nucleosides in the full length oligomer
I	3807	3588	3.41	9.00	11
A	7865	5869	5.58		
C	3190	5096	4.84	4.84	5
G	10515	10515	10.00	10.00	10
U	940	1092	1.04	1.04	1
Z					
P	2333	2745	2.61	2.61	3
Total				27.49	30

Figure S3. HPLC trace and nucleoside analysis of Z3 transcript (pH 7.4)



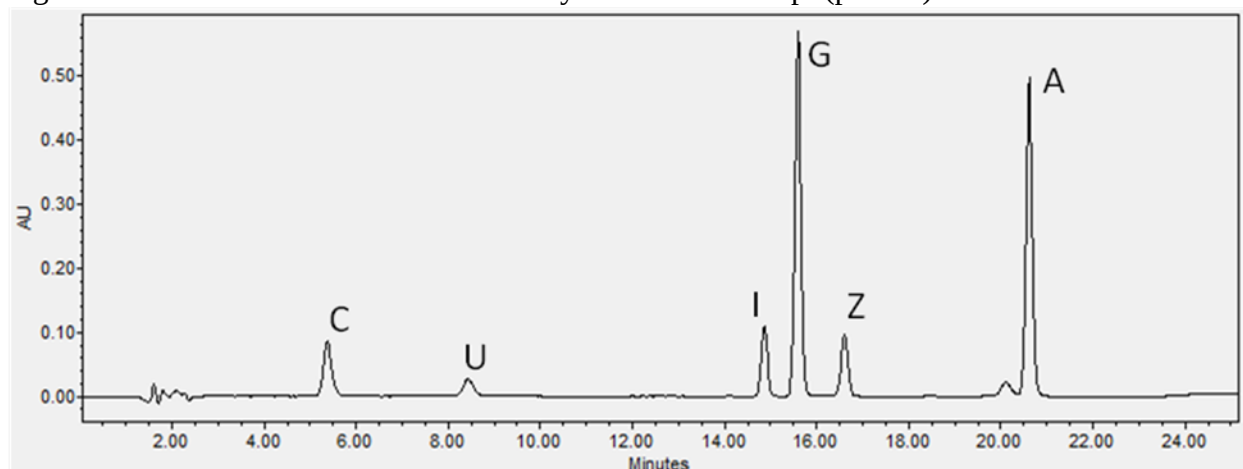
Detected nucleoside	HPLC peak area	Normalized peak area	Detected number of nucleosides	Detected number of nucleosides (I+A=total A)	Number of nucleosides in the full length oligomer
I	4279	4033	3.09	9.97	11
A	12044	8988	6.88		
C	2696	4307	3.30	3.30	5
G	13069	13069	10.00	10.00	10
U	1101	1279	0.98	0.98	1
Z	9706	7200	5.51	5.51	3
P					
Total				29.76	30

Figure S4. HPLC trace and nucleoside analysis of Z3 transcript (pH 7.0)



Detected nucleoside	HPLC peak area	Normalized peak area	Detected number of nucleosides	Detected number of nucleosides (I+A=total A)	Number of nucleosides in the full length oligomer
I	1541	1452	3.16	10.79	11
A	4690	3503	7.63		
C	1176	1879	4.09	4.09	5
G	4952	4592	10.00	10.00	10
U	430	499	1.09	1.09	1
Z	3364	2512	5.47	5.47	3
P					
Total				31.44	30

Figure S5. HPLC trace and nucleoside analysis of Z3 transcript (pH 6.7)



Detected nucleoside	HPLC peak area	Normalized peak area	Detected number of nucleosides	Detected number of nucleosides (I+A=total A)	Number of nucleosides in the full length oligomer
I	13546	12767	2.35	9.93	11
A	55172	41203	7.58		
C	13454	21492	3.95	3.95	5
G	54375	54375	10	10.00	10
U	4604	5347	0.98	0.98	1
Z	34384	25679	4.72	4.72	3
P					
Total				29.58	30