

Table S1 ; Concentrations and spectroscopic analysis for RNA extracted using different Extraction Buffers

S.No	Type Extraction Buffer (EB)	Concentration(ng/μl)					OD260/280					OD260/230				
		Trial 1	Trial 2	Trial 3	Average	SD	Trial 1	Trial 2	Trial 3	Average	SD	Trial 1	Trial 2	Trial 3	Average	SD
1	EBI	133	138	124.3	131.766667	5.66058497	2.2	2.23	2.18	2.203333	0.02054805	2.1	1.9	2.08	2.02666667	0.08993825
2	EBII	207	200.5	211	206.16667	4.3269183	2.13	2.1	2.05	2.09333	0.0329983	1.9	1.88	1.82	1.8666667	0.0339935
3	EBIII	0.7	0.8	0.6	0.7	0.08164966	1.06	1.25	1.3	1.203333	0.10338708	0.08	0.1	0.09	0.09	0.00816497
4	EBIV	4	4.5	3.5	4	0.40824829	1.14	1.2	1.2	1.18	0.02828427	0.16	0.14	0.21	0.17	0.0294392
5	EBV	129	123.4	132.6	128.333333	3.78535188	2.13	2.07	2	2.066667	0.05312459	1.57	1.66	1.69	1.64	0.0509902

Table S2; Concentrations and spectroscopic analysis for RNA extracted using different salt concentrations of EBII

S.No.	Extraction Buffer made with different concentrations of KCl (Molar)	Concentration(ng/ μ l)					OD260/280					OD260/230				
		Trial 1	Trial 2	Trial 3	Average	SD	Trial 1	Trial 2	Trial 3	Average	SD	Trial 1	Trial 2	Trial 3	Average	SD
1	0	23	18.9	16.3	19.4	2.75801861	1.89	1.96	1.98	1.94333333	0.0385861	0.18	0.17	0.19	0.18	0.00816497
2	0.5	22.7	18.7	28.8	23.4	4.15291063	1.72	1.84	1.69	1.75	0.0648074	0.12	0.14	0.19	0.15	0.0294392
3	1	257.9	249.9	256	254.6	3.4127213	1.99	2.05	1.9	1.98	0.0616441	0.99	0.9	1.02	0.97	0.0509902
4	1.5	272	271.4	278	273.8	2.97993289	2.17	2.1	2.09	2.12	0.0355903	1.5	1.48	1.55	1.51	0.0294392
5	2	242.6	236.2	246.2	241.66667	4.1354833	2.1	2.16	2.08	2.11333333	0.033993	1.91	1.98	2.01	1.96666667	0.04189935

Table S3; Concentrations and spectroscopic analysis for RNA extracted using different time spans for precipitation at the last step with LiCl (7.5M)

S.No.	Time of Precipitation with LiCl (7.5M)	Concentration(ng/μl)					OD260/280					OD260/230				
		Trial 1	Trial 2	Trial 3	Average	SD	Trial 1	Trial 2	Trial 3	Average	SD	Trial 1	Trial 2	Trial 3	Average	SD
1	5 min.	10.1	15.2	8.3	11.2	2.922328	1.87	1.77	1.73	1.79	0.058878	0.24	0.25	0.2	0.23	0.021602
2	10 min.	27.3	30.5	21.4	26.4	3.769173	2.01	1.92	1.98	1.97	0.037417	0.44	0.42	0.52	0.46	0.043205
3	15 min.	89.6	93.3	88.9	90.6	1.93046	2.11	2.02	2.2	2.11	0.07348	1.09	1.06	1.18	1.11	0.05099
4	20 min.	69.5	72.1	64.2	68.6	3.287349	1.97	2.01	1.93	1.97	0.03266	0.65	0.68	0.74	0.69	0.037417
5	25 min.	45.3	41.2	48.2	44.9	2.871701	2.15	2.09	2.09	2.11	0.028284	1.09	0.99	0.98	1.02	0.049666
6	30 min.	15	16.8	20.1	17.3	2.111871	2.01	1.95	1.98	1.98	0.024495	0.25	0.3	0.29	0.28	0.021602

Table S4; Concentrations and Spectroscopic analysis for RNA extracted from different plants

S.No	Plant Material (Malvaceae family)	Concentration(ng/μl)					OD260/280					OD260/230				
		Trial 1	Trial 2	Trial 3	Average	SD	Trial 1	Trial 2	Trial 3	Average	SD	Trial 1	Trial 2	Trial 3	Average	SD
1	<i>Hibiscus rosa-sinensis</i>	180	188.6	185.8	184.8	3.581434	2.17	2.19	2.12	2.16	0.0294392	1.33	1.43	1.38	1.37	0.05354126
2	<i>Althea rosea</i>	195	188	196	193	3.559026	2.22	2.21	2.22	2.21	0.00816497	1.88	1.99	1.95	1.91	0.0294392
3	<i>Malvaviscus arboreus</i>	168	162	172	167.3333	4.109609	2.03	2.07	2.11	2.066667	0.02867442	1.28	1.31	1.25	1.28	0.0244949
4	<i>Abutilon indicum</i>	107.7	112	110	109.9	1.756891	2.17	2.09	2.11	2.12	0.03559026	1.73	1.88	1.84	1.79	0.04546061
5	<i>Sida acuta</i>	62.4	69.3	64.5	65.4	2.887906	2	2.06	2.11	2.053333	0.04109609	1.02	1	1.01	1.01	0.00816497

Table S5; Spectroscopic and concentration comparison of RNA extracted using the modified protocol with the standard protocol

A

S.No.	Plant material	Concentration (ng/μl)									
		EBI					EBII				
		Trial 1	Trial 2	Trial 3	Average	SD	Trial 1	Trial 2	Trial 3	Average	SD
1	<i>Hibiscus rosa-sinensis</i>	60.6	65.1	58.58	61.42666667	2.7252074	136	138	131	135	2.867441756
2	<i>Altheae rosea</i>	56.1	66	63	61.7	4.1448764	101	104.4	109	104.8	2.080598205
3	<i>Malvaviscus arboreus</i>	91.8	84.2	87.7	87.9	3.1059083	131	137.7	134	134.2333333	1.69188331
4	<i>Abutilon indicum</i>	38	42.1	42	40.7	1.9096247	101.2	110	106.2	105.8	1.892675942
5	<i>Sida acuta</i>	50.21	54	52.4	52.20333333	1.5534978	73.3	76.4	70.2	73.3	2.531139401

B

S.No.	Plant material	OD260/280									
		EBI					EBII				
		Trial 1	Trial 2	Trial 3	Average	SD	Trial 1	Trial 2	Trial 3	Average	SD
1	<i>Hibiscus rosa-sinensis</i>	2.06	2.07	2.05	2.06	0.008164966	2.08	2.1	2.06	2.08	0.016329932
2	<i>Altheae rosea</i>	2.13	2.11	2.16	2.13333333	0.020427529	2.19	2.2	2.18	2.19	0.008164966
3	<i>Malvaviscus arboreus</i>	2.02	2.06	2.05	2.04333333	0.006849349	2.07	2.14	2.18	2.13	0.045460606
4	<i>Abutilon indicum</i>	2.02	2.05	2.04	2.03666667	0.005665577	2.22	2.21	2.23	2.22	0.008164966
5	<i>Sida acuta</i>	2.15	2.16	2.12	2.14333333	0.016405359	2.04	2.08	2.01	2.04333333	0.028674418

C

S.No.	Plant material	OD260/230									
		EBI					EBII				
		Trial 1	Trial 2	Trial 3	Average	SD	Trial 1	Trial 2	Trial 3	Average	SD
1	<i>Hibiscus rosa-sinensis</i>	0.72	0.667	0.78	0.72233333	0.046162	1.16	1.2	1.2	1.18666667	0.018856181
2	<i>Altheae rosea</i>	1.14	1.12	1.19	1.15	0.029439	1.7	1.76	1.82	1.76	0.048989795
3	<i>Malvaviscus arboreus</i>	0.7	0.78	0.8	0.76	0.043205	1.52	1.67	1.65	1.61333333	0.066499791
4	<i>Abutilon indicum</i>	1.17	1.26	1.2	1.21	0.037417	1.94	1.86	1.96	1.92	0.043204938
5	<i>Sida acuta</i>	1.01	1.09	0.94	1.01333333	0.061242	1	1.02	1	1.00666667	0.00942809

Table S6; pH comparison when Malvaceae family plants crushed in buffers EBI and EBII

S.No.	Plant Material	pH when crushed in EBI					pH when crushed in EBII				
		Trial 1	Trial 2	Trial 3	Average	SD	Trial 1	Trial 2	Trial 3	Average	SD
1	<i>Hibiscus rosa-sinensis</i>	7.33	7.23	7.3	7.286666667	0.04189935	7.91	7.92	7.93	7.92	0.008164966
2	<i>Althea rosea</i>	7.42	7.35	7.39	7.386666667	0.028674418	7.9	7.9	7.89	7.896666667	0.004714045
3	<i>Malvaviscus arboreus</i>	7.04	7.06	7.08	7.06	0.016329932	7.78	7.75	7.77	7.766666667	0.012472191
4	<i>Abutilon indicum</i>	7.1	7.05	7.09	7.08	0.021602469	7.66	7.67	7.68	7.67	0.008164966
5	<i>Sida acuta</i>	7.33	7.29	7.31	7.31	0.016329932	7.77	7.77	7.78	7.773333333	0.004714045

Table S7; Viscosity comparison when Malvaceae family plants crushed in buffers EBI and EBII

S.No.	Plant Material	Viscosity when crushed in EBI (Pa·s)					Viscosity when crushed in EBII (Pa·s)				
		Trial 1	Trial 2	Trial 3	Average	SD	Trial 1	Trial 2	Trial 3	Average	SD
1	<i>Hibiscus rosa-sinensis</i>	0.421	0.447	0.448	0.438666667	0.012498889	0.0168	0.0168	0.0167	0.016766667	4.71405E-05
2	<i>Althea rosea</i>	1.38	1.35	1.14	1.29	0.106770783	0.378	0.354	0.354	0.362	0.011313708
3	<i>Malvaviscus arboreus</i>	1.55	1.39	1.46	1.466666667	0.065489609	0.113	0.109	0.103	0.108333333	0.004109609
4	<i>Abutilon indicum</i>	0.07444	0.0747	0.0729	0.074013333	0.000794369	0.00772	0.00744	0.0075	0.007553333	0.00012037
5	<i>Sida acuta</i>	3.17	3.25	3.1	3.173333333	0.061282588	0.105	0.101	0.103	0.103	0.001632993