



Figure S1. Standard curves for reducing sugar (A) and lactic acid (B).

Supplementary Table S1 Analysis of variance, regression analysis, and optimal conditions for chickpea milk fermentation.

Source	Reducing sugar			Lactic acid			Cell viability index		
	Mean square	f-value	p-value	Mean square	f-value	p-value	Mean square	f-value	p-value
Model	0.0071	6907.04	< 0.0001	0.1685	77.34	< 0.0001	0.0024	1022.87	< 0.0001
Linear									
A: Start time	0.0023	2266.30	< 0.0001	0.0224	10.28	0.0063	0.0055	2341.92	< 0.0001
B: Treatment duration	0.0013	1295.21	< 0.0001	0.1600	73.45	< 0.0001	0.0027	1171.91	< 0.0001
C: Frequency	0.0137	13283.94	< 0.0001	0.2737	125.63	< 0.0001	0.0004	191.68	< 0.0001
D: Power density	0.0005	463.33	< 0.0001	0.0099	4.55	0.0512	1.223e-06	0.52	0.48
Quadratic									
A ²	0.0263	25579.00	< 0.0001	0.1144	52.53	< 0.0001	0.0031	1342.27	< 0.0001
B ²	0.0038	3705.13	< 0.0001	0.1551	71.19	< 0.0001	0.0015	621.93	< 0.0001

C ²	0.0013	1271.17	< 0.0001	0.4693	215.41	< 0.0001	0.0022	942.31	< 0.0001
D ²	0.0011	1098.36	< 0.0001	0.0575	26.39	0.0002	0.0029	1255.9 7	< 0.0001
Interaction									
A*B	0.0001	95.34	< 0.0001	0.2122	97.39	< 0.0001	0.0041	1771.0 1	< 0.0001
A*C	0.0023	2283.57	< 0.0001	0.1181	54.21	< 0.0001	0.0012	493.89	< 0.0001
A*D	0.0303	29503.5 3	< 0.0001	0.1140	52.35	< 0.0001	0.0031	1319.7 4	< 0.0001
B*C	0.0003	316.94	< 0.0001	0.0207	9.50	0.0081	0.0017	747.17	< 0.0001
B*D	0.0034	3323.50	< 0.0001	0.1693	77.74	< 0.0001	0.0027	1139.9 4	< 0.0001
C*D	0.0093	9021.52	< 0.0001	0.2991	137.31	< 0.0001	0.0000	15.92	0.0013
Diagnosis Statistics									
Lack-of-Fit	1.32e-06	4.53	0.0793	0.0028	4.60	0.08	2.824e- 06	2.56	0.1890
R ²	0.99			0.99			0.99		
R ² Adjusted	0.99			0.97			0.99		
R ² Predicted	0.99			0.93			0.99		
Adequate precision	339.42			36.42			147.66		
Mean	0.26			2.86			0.49		
CV%	0.39			1.63			0.31		
Std. Dev	0.0010			0.0467			0.0015		

Supplementary Table S2. Phytochemical content of chickpea beverage samples.

Phytochemical	FCB	UFCB
Chlorogenic acid	10.30±0.05 ^a	10.20±0.05 ^a
Biochanin A	0.21±0.00 ^a	0.21±0.00 ^a
Phenol-4-ethenyl-2,6-dimethoxy	0.26±0.00 ^a	0.33 ±0.00 ^b
Cinnam ic acid	5.07±0.04 ^a	4.69±0.04 ^b
Rosmarinic acid	8.70±0.05 ^a	13.2 ±0.05 ^b
Stigmasterol	4.67±0.04 ^a	2.41±0.03 ^b
β-sitosterol	14.70±0.05 ^a	9.31±0.04 ^b
Quinic acid	10.69±0.01 ^a	14.10±0.05 ^b
Salicylic acid	0.69±0.01 ^a	0.68±0.01 ^a
Caffeic acid	0.84±0.01 ^a	0.85±0.01 ^a
Tanshinone IIA	0.11±0.00 ^a	0.11±0.00 ^a
Protocatechuic acid	0.52±0.01 ^a	0.63±0.00 ^b
Epicatechin gallate	0.43±0.01 ^a	0.44±0.01 ^a
Salvianolic acid	0.78±0.01 ^a	0.80±0.001 ^b
Glycyrrhetic acid	0.11±0.00 ^a	0.11±0.01 ^a
Ellagic acid	1.00±0.00 ^a	1.29±0.02 ^b
Total phytochemical content	66.709	64.51333