

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #32	AnalytiCon Plate #1	A1: NFC	-	0.069	0.0619	0.457	98.2
Rxn #32	AnalytiCon Plate #1	B1	50	0.360	0.0619	0.457	24.6
Rxn #32	AnalytiCon Plate #1	C1	50	0.409	0.0619	0.457	12.1
Rxn #32	AnalytiCon Plate #1	D1	50	0.387	0.0619	0.457	17.7
Rxn #32	AnalytiCon Plate #1	E1	50	0.404	0.0619	0.457	13.4
Rxn #32	AnalytiCon Plate #1	F1	50	0.359	0.0619	0.457	24.8
Rxn #32	AnalytiCon Plate #1	G1	50	0.409	0.0619	0.457	12.1
Rxn #32	AnalytiCon Plate #1	H1: FOC	-	0.438	0.0619	0.457	4.8
Rxn #32	AnalytiCon Plate #1	A2: NFC	-	0.057	0.0619	0.457	101.2
Rxn #32	AnalytiCon Plate #1	B2	50	0.397	0.0619	0.457	15.2
Rxn #32	AnalytiCon Plate #1	C2	50	0.471	0.0619	0.457	-3.5
Rxn #32	AnalytiCon Plate #1	D2	50	0.424	0.0619	0.457	8.4
Rxn #32	AnalytiCon Plate #1	E2	50	0.333	0.0619	0.457	31.4
Rxn #32	AnalytiCon Plate #1	F2	50	0.417	0.0619	0.457	10.1
Rxn #32	AnalytiCon Plate #1	G2	50	0.401	0.0619	0.457	14.2
Rxn #32	AnalytiCon Plate #1	H2: FOC	-	0.450	0.0619	0.457	1.8
Rxn #32	AnalytiCon Plate #1	A3: NFC	-	0.060	0.0619	0.457	100.5
Rxn #32	AnalytiCon Plate #1	B3	50	0.452	0.0619	0.457	1.3
Rxn #32	AnalytiCon Plate #1	C3	50	0.447	0.0619	0.457	2.5
Rxn #32	AnalytiCon Plate #1	D3	50	0.380	0.0619	0.457	19.5
Rxn #32	AnalytiCon Plate #1	E3	50	0.412	0.0619	0.457	11.4
Rxn #32	AnalytiCon Plate #1	F3	50	0.437	0.0619	0.457	5.1
Rxn #32	AnalytiCon Plate #1	G3	50	0.413	0.0619	0.457	11.1
Rxn #32	AnalytiCon Plate #1	H3: FOC	-	0.452	0.0619	0.457	1.3
Rxn #32	AnalytiCon Plate #1	A4: NFC	-	0.057	0.0619	0.457	101.2
Rxn #32	AnalytiCon Plate #1	B4	50	0.396	0.0619	0.457	15.4
Rxn #32	AnalytiCon Plate #1	C4	50	0.454	0.0619	0.457	0.8
Rxn #32	AnalytiCon Plate #1	D4	50	0.408	0.0619	0.457	12.4
Rxn #32	AnalytiCon Plate #1	E4	50	0.445	0.0619	0.457	3.0
Rxn #32	AnalytiCon Plate #1	F4	50	0.381	0.0619	0.457	19.2
Rxn #32	AnalytiCon Plate #1	G4	50	0.437	0.0619	0.457	5.1
Rxn #32	AnalytiCon Plate #1	H4: FOC	-	0.454	0.0619	0.457	0.8
Rxn #32	AnalytiCon Plate #1	A5: NFC	-	0.056	0.0619	0.457	101.5
Rxn #32	AnalytiCon Plate #1	B5: NFC	-	0.066	0.0619	0.457	99.0
Rxn #32	AnalytiCon Plate #1	C5: NFC	-	0.066	0.0619	0.457	99.0
Rxn #32	AnalytiCon Plate #1	D5: NFC	-	0.070	0.0619	0.457	97.9
Rxn #32	AnalytiCon Plate #1	E5: FOC	-	0.464	0.0619	0.457	-1.8
Rxn #32	AnalytiCon Plate #1	F5: FOC	-	0.467	0.0619	0.457	-2.5
Rxn #32	AnalytiCon Plate #1	G5: FOC	-	0.463	0.0619	0.457	-1.5
Rxn #32	AnalytiCon Plate #1	H5: FOC	-	0.466	0.0619	0.457	-2.3
Rxn #32	AnalytiCon Plate #1	A6: NFC	-	0.067	0.0619	0.457	98.7
Rxn #32	AnalytiCon Plate #1	B6	50	0.444	0.0619	0.457	3.3
Rxn #32	AnalytiCon Plate #1	C6	50	0.405	0.0619	0.457	13.2
Rxn #32	AnalytiCon Plate #1	D6	50	0.437	0.0619	0.457	5.1
Rxn #32	AnalytiCon Plate #1	E6	50	0.435	0.0619	0.457	5.6
Rxn #32	AnalytiCon Plate #1	F6	50	0.440	0.0619	0.457	4.3
Rxn #32	AnalytiCon Plate #1	G6	50	0.426	0.0619	0.457	7.8
Rxn #32	AnalytiCon Plate #1	H6: FOC	-	0.452	0.0619	0.457	1.3
Rxn #32	AnalytiCon Plate #1	A7: NFC	-	0.063	0.0619	0.457	99.7
Rxn #32	AnalytiCon Plate #1	B7	50	0.451	0.0619	0.457	1.5
Rxn #32	AnalytiCon Plate #1	C7	50	0.400	0.0619	0.457	14.4
Rxn #32	AnalytiCon Plate #1	D7	50	0.461	0.0619	0.457	-1.0
Rxn #32	AnalytiCon Plate #1	E7	50	0.461	0.0619	0.457	-1.0
Rxn #32	AnalytiCon Plate #1	F7	50	0.443	0.0619	0.457	3.5
Rxn #32	AnalytiCon Plate #1	G7	50	0.179	0.0619	0.457	70.4
Rxn #32	AnalytiCon Plate #1	H7: FOC	-	0.461	0.0619	0.457	-1.0
Rxn #32	AnalytiCon Plate #1	A8: NFC	-	0.057	0.0619	0.457	101.2
Rxn #32	AnalytiCon Plate #1	B8	50	0.414	0.0619	0.457	10.9
Rxn #32	AnalytiCon Plate #1	C8	50	0.445	0.0619	0.457	3.0
Rxn #32	AnalytiCon Plate #1	D8	50	0.439	0.0619	0.457	4.6
Rxn #32	AnalytiCon Plate #1	E8	50	0.454	0.0619	0.457	0.8
Rxn #32	AnalytiCon Plate #1	F8	50	0.442	0.0619	0.457	3.8
Rxn #32	AnalytiCon Plate #1	G8	50	0.439	0.0619	0.457	4.6
Rxn #32	AnalytiCon Plate #1	H8: FOC	-	0.440	0.0619	0.457	4.3
Rxn #32	AnalytiCon Plate #1	A9: NFC	-	0.061	0.0619	0.457	100.2
Rxn #32	AnalytiCon Plate #1	B9	50	0.452	0.0619	0.457	1.3
Rxn #32	AnalytiCon Plate #1	C9	50	0.461	0.0619	0.457	-1.0
Rxn #32	AnalytiCon Plate #1	D9	50	0.441	0.0619	0.457	4.0
Rxn #32	AnalytiCon Plate #1	E9	50	0.439	0.0619	0.457	4.6
Rxn #32	AnalytiCon Plate #1	F9	50	0.452	0.0619	0.457	1.3
Rxn #32	AnalytiCon Plate #1	G9	50	0.440	0.0619	0.457	4.3
Rxn #32	AnalytiCon Plate #1	H9: FOC	-	0.452	0.0619	0.457	1.3
Rxn #32	AnalytiCon Plate #1	A10: NFC	-	0.064	0.0619	0.457	99.5
Rxn #32	AnalytiCon Plate #1	B10	50	0.443	0.0619	0.457	3.5

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #32	AnalytiCon Plate #1	C10	50	0.404	0.0619	0.457	13.4
Rxn #32	AnalytiCon Plate #1	D10	50	0.207	0.0619	0.457	63.3
Rxn #32	AnalytiCon Plate #1	E10	50	0.431	0.0619	0.457	6.6
Rxn #32	AnalytiCon Plate #1	F10	50	0.439	0.0619	0.457	4.6
Rxn #32	AnalytiCon Plate #1	G10	50	0.428	0.0619	0.457	7.3
Rxn #32	AnalytiCon Plate #1	H10: FOC	-	0.457	0.0619	0.457	0.0
Rxn #32	AnalytiCon Plate #1	A11: NFC	-	0.054	0.0619	0.457	102.0
Rxn #32	AnalytiCon Plate #1	B11	50	0.436	0.0619	0.457	5.3
Rxn #32	AnalytiCon Plate #1	C11	50	0.411	0.0619	0.457	11.6
Rxn #32	AnalytiCon Plate #1	D11	50	0.471	0.0619	0.457	-3.5
Rxn #32	AnalytiCon Plate #1	E11	50	0.425	0.0619	0.457	8.1
Rxn #32	AnalytiCon Plate #1	F11	50	0.433	0.0619	0.457	6.1
Rxn #32	AnalytiCon Plate #1	G11	50	0.445	0.0619	0.457	3.0
Rxn #32	AnalytiCon Plate #1	H11: FOC	-	0.437	0.0619	0.457	5.1
Rxn #32	AnalytiCon Plate #1	A12: NFC	-	0.062	0.0619	0.457	100.0
Rxn #32	AnalytiCon Plate #1	H12: FOC	-	0.441	0.0619	0.457	4.0
Rxn #33	AnalytiCon Plate #2	A1: NFC	-	0.045	0.0516	0.499	101.5
Rxn #33	AnalytiCon Plate #2	B1	50	0.423	0.0516	0.499	17.0
Rxn #33	AnalytiCon Plate #2	C1	50	0.446	0.0516	0.499	11.8
Rxn #33	AnalytiCon Plate #2	D1	50	0.424	0.0516	0.499	16.8
Rxn #33	AnalytiCon Plate #2	E1	50	0.438	0.0516	0.499	13.6
Rxn #33	AnalytiCon Plate #2	F1	50	0.379	0.0516	0.499	26.8
Rxn #33	AnalytiCon Plate #2	G1	50	0.451	0.0516	0.499	10.7
Rxn #33	AnalytiCon Plate #2	H1: FOC	-	0.483	0.0516	0.499	3.6
Rxn #33	AnalytiCon Plate #2	A2: NFC	-	0.051	0.0516	0.499	100.1
Rxn #33	AnalytiCon Plate #2	B2	50	0.482	0.0516	0.499	3.8
Rxn #33	AnalytiCon Plate #2	C2	50	0.399	0.0516	0.499	22.4
Rxn #33	AnalytiCon Plate #2	D2	50	0.476	0.0516	0.499	5.1
Rxn #33	AnalytiCon Plate #2	E2	50	0.500	0.0516	0.499	-0.2
Rxn #33	AnalytiCon Plate #2	F2	50	0.488	0.0516	0.499	2.5
Rxn #33	AnalytiCon Plate #2	G2	50	0.490	0.0516	0.499	2.0
Rxn #33	AnalytiCon Plate #2	H2: FOC	-	0.506	0.0516	0.499	-1.6
Rxn #33	AnalytiCon Plate #2	A3: NFC	-	0.050	0.0516	0.499	100.4
Rxn #33	AnalytiCon Plate #2	B3	50	0.449	0.0516	0.499	11.2
Rxn #33	AnalytiCon Plate #2	C3	50	0.481	0.0516	0.499	4.0
Rxn #33	AnalytiCon Plate #2	D3	50	0.367	0.0516	0.499	29.5
Rxn #33	AnalytiCon Plate #2	E3	50	0.397	0.0516	0.499	22.8
Rxn #33	AnalytiCon Plate #2	F3	50	0.484	0.0516	0.499	3.4
Rxn #33	AnalytiCon Plate #2	G3	50	0.488	0.0516	0.499	2.5
Rxn #33	AnalytiCon Plate #2	H3: FOC	-	0.514	0.0516	0.499	-3.4
Rxn #33	AnalytiCon Plate #2	A4: NFC	-	0.047	0.0516	0.499	101.0
Rxn #33	AnalytiCon Plate #2	B4	50	0.474	0.0516	0.499	5.6
Rxn #33	AnalytiCon Plate #2	C4	50	0.453	0.0516	0.499	10.3
Rxn #33	AnalytiCon Plate #2	D4	50	0.508	0.0516	0.499	-2.0
Rxn #33	AnalytiCon Plate #2	E4	50	0.412	0.0516	0.499	19.4
Rxn #33	AnalytiCon Plate #2	F4	50	0.493	0.0516	0.499	1.3
Rxn #33	AnalytiCon Plate #2	G4	50	0.485	0.0516	0.499	3.1
Rxn #33	AnalytiCon Plate #2	H4: FOC	-	0.501	0.0516	0.499	-0.4
Rxn #33	AnalytiCon Plate #2	A5: NFC	-	0.053	0.0516	0.499	99.7
Rxn #33	AnalytiCon Plate #2	B5: NFC	-	0.051	0.0516	0.499	100.1
Rxn #33	AnalytiCon Plate #2	C5: NFC	-	0.058	0.0516	0.499	98.6
Rxn #33	AnalytiCon Plate #2	D5: NFC	-	0.047	0.0516	0.499	101.0
Rxn #33	AnalytiCon Plate #2	E5: FOC	-	0.482	0.0516	0.499	3.8
Rxn #33	AnalytiCon Plate #2	F5: FOC	-	0.493	0.0516	0.499	1.3
Rxn #33	AnalytiCon Plate #2	G5: FOC	-	0.496	0.0516	0.499	0.7
Rxn #33	AnalytiCon Plate #2	H5: FOC	-	0.501	0.0516	0.499	-0.4
Rxn #33	AnalytiCon Plate #2	A6: NFC	-	0.054	0.0516	0.499	99.5
Rxn #33	AnalytiCon Plate #2	B6	50	0.477	0.0516	0.499	4.9
Rxn #33	AnalytiCon Plate #2	C6	50	0.482	0.0516	0.499	3.8
Rxn #33	AnalytiCon Plate #2	D6	50	0.480	0.0516	0.499	4.2
Rxn #33	AnalytiCon Plate #2	E6	50	0.482	0.0516	0.499	3.8
Rxn #33	AnalytiCon Plate #2	F6	50	0.484	0.0516	0.499	3.4
Rxn #33	AnalytiCon Plate #2	G6	50	0.477	0.0516	0.499	4.9
Rxn #33	AnalytiCon Plate #2	H6: FOC	-	0.506	0.0516	0.499	-1.6
Rxn #33	AnalytiCon Plate #2	A7: NFC	-	0.044	0.0516	0.499	101.7
Rxn #33	AnalytiCon Plate #2	B7	50	0.451	0.0516	0.499	10.7
Rxn #33	AnalytiCon Plate #2	C7	50	0.458	0.0516	0.499	9.2
Rxn #33	AnalytiCon Plate #2	D7	50	0.482	0.0516	0.499	3.8
Rxn #33	AnalytiCon Plate #2	E7	50	0.461	0.0516	0.499	8.5
Rxn #33	AnalytiCon Plate #2	F7	50	0.489	0.0516	0.499	2.2
Rxn #33	AnalytiCon Plate #2	G7	50	0.483	0.0516	0.499	3.6
Rxn #33	AnalytiCon Plate #2	H7: FOC	-	0.505	0.0516	0.499	-1.3
Rxn #33	AnalytiCon Plate #2	A8: NFC	-	0.058	0.0516	0.499	98.6
Rxn #33	AnalytiCon Plate #2	B8	50	0.225	0.0516	0.499	61.2

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #33	AnalytiCon Plate #2	C8	50	0.223	0.0516	0.499	61.7
Rxn #33	AnalytiCon Plate #2	D8	50	0.432	0.0516	0.499	15.0
Rxn #33	AnalytiCon Plate #2	E8	50	0.332	0.0516	0.499	37.3
Rxn #33	AnalytiCon Plate #2	F8	50	0.281	0.0516	0.499	48.7
Rxn #33	AnalytiCon Plate #2	G8	50	0.445	0.0516	0.499	12.1
Rxn #33	AnalytiCon Plate #2	H8: FOC	-	0.502	0.0516	0.499	-0.7
Rxn #33	AnalytiCon Plate #2	A9: NFC	-	0.054	0.0516	0.499	99.5
Rxn #33	AnalytiCon Plate #2	B9	50	0.450	0.0516	0.499	11.0
Rxn #33	AnalytiCon Plate #2	C9	50	0.453	0.0516	0.499	10.3
Rxn #33	AnalytiCon Plate #2	D9	50	0.426	0.0516	0.499	16.3
Rxn #33	AnalytiCon Plate #2	E9	50	0.466	0.0516	0.499	7.4
Rxn #33	AnalytiCon Plate #2	F9	50	0.366	0.0516	0.499	29.7
Rxn #33	AnalytiCon Plate #2	G9	50	0.471	0.0516	0.499	6.3
Rxn #33	AnalytiCon Plate #2	H9: FOC	-	0.488	0.0516	0.499	2.5
Rxn #33	AnalytiCon Plate #2	A10: NFC	-	0.050	0.0516	0.499	100.4
Rxn #33	AnalytiCon Plate #2	B10	50	0.361	0.0516	0.499	30.8
Rxn #33	AnalytiCon Plate #2	C10	50	0.439	0.0516	0.499	13.4
Rxn #33	AnalytiCon Plate #2	D10	50	0.408	0.0516	0.499	20.3
Rxn #33	AnalytiCon Plate #2	E10	50	0.353	0.0516	0.499	32.6
Rxn #33	AnalytiCon Plate #2	F10	50	0.505	0.0516	0.499	-1.3
Rxn #33	AnalytiCon Plate #2	G10	50	0.081	0.0516	0.499	93.4
Rxn #33	AnalytiCon Plate #2	H10: FOC	-	0.487	0.0516	0.499	2.7
Rxn #33	AnalytiCon Plate #2	A11: NFC	-	0.055	0.0516	0.499	99.2
Rxn #33	AnalytiCon Plate #2	B11	50	0.479	0.0516	0.499	4.5
Rxn #33	AnalytiCon Plate #2	C11	50	0.466	0.0516	0.499	7.4
Rxn #33	AnalytiCon Plate #2	D11	50	0.445	0.0516	0.499	12.1
Rxn #33	AnalytiCon Plate #2	E11	50	0.496	0.0516	0.499	0.7
Rxn #33	AnalytiCon Plate #2	F11	50	0.473	0.0516	0.499	5.8
Rxn #33	AnalytiCon Plate #2	G11	50	0.493	0.0516	0.499	1.3
Rxn #33	AnalytiCon Plate #2	H11: FOC	-	0.470	0.0516	0.499	6.5
Rxn #33	AnalytiCon Plate #2	A12: NFC	-	0.057	0.0516	0.499	98.8
Rxn #33	AnalytiCon Plate #2	H12: FOC	-	0.475	0.0516	0.499	5.4
Rxn #34	AnalytiCon Plate #3	A1: NFC	-	0.051	0.0543	0.551	100.7
Rxn #34	AnalytiCon Plate #3	B1	50	0.525	0.0543	0.551	5.2
Rxn #34	AnalytiCon Plate #3	C1	50	0.524	0.0543	0.551	5.4
Rxn #34	AnalytiCon Plate #3	D1	50	0.466	0.0543	0.551	17.1
Rxn #34	AnalytiCon Plate #3	E1	50	0.342	0.0543	0.551	42.1
Rxn #34	AnalytiCon Plate #3	F1	50	0.453	0.0543	0.551	19.7
Rxn #34	AnalytiCon Plate #3	G1	50	0.516	0.0543	0.551	7.0
Rxn #34	AnalytiCon Plate #3	H1: FOC	-	0.520	0.0543	0.551	6.2
Rxn #34	AnalytiCon Plate #3	A2: NFC	-	0.048	0.0543	0.551	101.3
Rxn #34	AnalytiCon Plate #3	B2	50	0.541	0.0543	0.551	2.0
Rxn #34	AnalytiCon Plate #3	C2	50	0.537	0.0543	0.551	2.8
Rxn #34	AnalytiCon Plate #3	D2	50	0.430	0.0543	0.551	24.4
Rxn #34	AnalytiCon Plate #3	E2	50	0.517	0.0543	0.551	6.8
Rxn #34	AnalytiCon Plate #3	F2	50	0.521	0.0543	0.551	6.0
Rxn #34	AnalytiCon Plate #3	G2	50	0.529	0.0543	0.551	4.4
Rxn #34	AnalytiCon Plate #3	H2: FOC	-	0.552	0.0543	0.551	-0.2
Rxn #34	AnalytiCon Plate #3	A3: NFC	-	0.054	0.0543	0.551	100.1
Rxn #34	AnalytiCon Plate #3	B3	50	0.536	0.0543	0.551	3.0
Rxn #34	AnalytiCon Plate #3	C3	50	0.541	0.0543	0.551	2.0
Rxn #34	AnalytiCon Plate #3	D3	50	0.513	0.0543	0.551	7.7
Rxn #34	AnalytiCon Plate #3	E3	50	0.430	0.0543	0.551	24.4
Rxn #34	AnalytiCon Plate #3	F3	50	0.469	0.0543	0.551	16.5
Rxn #34	AnalytiCon Plate #3	G3	50	0.431	0.0543	0.551	24.2
Rxn #34	AnalytiCon Plate #3	H3: FOC	-	0.552	0.0543	0.551	-0.2
Rxn #34	AnalytiCon Plate #3	A4: NFC	-	0.058	0.0543	0.551	99.3
Rxn #34	AnalytiCon Plate #3	B4	50	0.524	0.0543	0.551	5.4
Rxn #34	AnalytiCon Plate #3	C4	50	0.524	0.0543	0.551	5.4
Rxn #34	AnalytiCon Plate #3	D4	50	0.496	0.0543	0.551	11.1
Rxn #34	AnalytiCon Plate #3	E4	50	0.504	0.0543	0.551	9.5
Rxn #34	AnalytiCon Plate #3	F4	50	0.529	0.0543	0.551	4.4
Rxn #34	AnalytiCon Plate #3	G4	50	0.472	0.0543	0.551	15.9
Rxn #34	AnalytiCon Plate #3	H4: FOC	-	0.557	0.0543	0.551	-1.2
Rxn #34	AnalytiCon Plate #3	A5: NFC	-	0.052	0.0543	0.551	100.5
Rxn #34	AnalytiCon Plate #3	B5: NFC	-	0.047	0.0543	0.551	101.5
Rxn #34	AnalytiCon Plate #3	C5: NFC	-	0.049	0.0543	0.551	101.1
Rxn #34	AnalytiCon Plate #3	D5: NFC	-	0.052	0.0543	0.551	100.5
Rxn #34	AnalytiCon Plate #3	E5: FOC	-	0.553	0.0543	0.551	-0.4
Rxn #34	AnalytiCon Plate #3	F5: FOC	-	0.536	0.0543	0.551	3.0
Rxn #34	AnalytiCon Plate #3	G5: FOC	-	0.555	0.0543	0.551	-0.8
Rxn #34	AnalytiCon Plate #3	H5: FOC	-	0.559	0.0543	0.551	-1.6
Rxn #34	AnalytiCon Plate #3	A6: NFC	-	0.058	0.0543	0.551	99.3
Rxn #34	AnalytiCon Plate #3	B6	50	0.523	0.0543	0.551	5.6

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #34	AnalytiCon Plate #3	C6	50	0.472	0.0543	0.551	15.9
Rxn #34	AnalytiCon Plate #3	D6	50	0.381	0.0543	0.551	34.2
Rxn #34	AnalytiCon Plate #3	E6	50	0.509	0.0543	0.551	8.5
Rxn #34	AnalytiCon Plate #3	F6	50	0.497	0.0543	0.551	10.9
Rxn #34	AnalytiCon Plate #3	G6	50	0.531	0.0543	0.551	4.0
Rxn #34	AnalytiCon Plate #3	H6: FOC	-	0.559	0.0543	0.551	-1.6
Rxn #34	AnalytiCon Plate #3	A7: NFC	-	0.056	0.0543	0.551	99.7
Rxn #34	AnalytiCon Plate #3	B7	50	0.485	0.0543	0.551	13.3
Rxn #34	AnalytiCon Plate #3	C7	50	0.521	0.0543	0.551	6.0
Rxn #34	AnalytiCon Plate #3	D7	50	0.247	0.0543	0.551	61.2
Rxn #34	AnalytiCon Plate #3	E7	50	0.438	0.0543	0.551	22.8
Rxn #34	AnalytiCon Plate #3	F7	50	0.466	0.0543	0.551	17.1
Rxn #34	AnalytiCon Plate #3	G7	50	0.527	0.0543	0.551	4.8
Rxn #34	AnalytiCon Plate #3	H7: FOC	-	0.563	0.0543	0.551	-2.4
Rxn #34	AnalytiCon Plate #3	A8: NFC	-	0.062	0.0543	0.551	98.4
Rxn #34	AnalytiCon Plate #3	B8	50	0.530	0.0543	0.551	4.2
Rxn #34	AnalytiCon Plate #3	C8	50	0.515	0.0543	0.551	7.2
Rxn #34	AnalytiCon Plate #3	D8	50	0.529	0.0543	0.551	4.4
Rxn #34	AnalytiCon Plate #3	E8	50	0.478	0.0543	0.551	14.7
Rxn #34	AnalytiCon Plate #3	F8	50	0.547	0.0543	0.551	0.8
Rxn #34	AnalytiCon Plate #3	G8	50	0.574	0.0543	0.551	-4.6
Rxn #34	AnalytiCon Plate #3	H8: FOC	-	0.563	0.0543	0.551	-2.4
Rxn #34	AnalytiCon Plate #3	A9: NFC	-	0.061	0.0543	0.551	98.7
Rxn #34	AnalytiCon Plate #3	B9	50	0.497	0.0543	0.551	10.9
Rxn #34	AnalytiCon Plate #3	C9	50	0.440	0.0543	0.551	22.3
Rxn #34	AnalytiCon Plate #3	D9	50	0.513	0.0543	0.551	7.7
Rxn #34	AnalytiCon Plate #3	E9	50	0.476	0.0543	0.551	15.1
Rxn #34	AnalytiCon Plate #3	F9	50	0.527	0.0543	0.551	4.8
Rxn #34	AnalytiCon Plate #3	G9	50	0.542	0.0543	0.551	1.8
Rxn #34	AnalytiCon Plate #3	H9: FOC	-	0.573	0.0543	0.551	-4.4
Rxn #34	AnalytiCon Plate #3	A10: NFC	-	0.054	0.0543	0.551	100.1
Rxn #34	AnalytiCon Plate #3	B10	50	0.504	0.0543	0.551	9.5
Rxn #34	AnalytiCon Plate #3	C10	50	0.573	0.0543	0.551	-4.4
Rxn #34	AnalytiCon Plate #3	D10	50	0.577	0.0543	0.551	-5.2
Rxn #34	AnalytiCon Plate #3	E10	50	0.483	0.0543	0.551	13.7
Rxn #34	AnalytiCon Plate #3	F10	50	0.531	0.0543	0.551	4.0
Rxn #34	AnalytiCon Plate #3	G10	50	0.542	0.0543	0.551	1.8
Rxn #34	AnalytiCon Plate #3	H10: FOC	-	0.568	0.0543	0.551	-3.4
Rxn #34	AnalytiCon Plate #3	A11: NFC	-	0.055	0.0543	0.551	99.9
Rxn #34	AnalytiCon Plate #3	B11	50	0.460	0.0543	0.551	18.3
Rxn #34	AnalytiCon Plate #3	C11	50	0.538	0.0543	0.551	2.6
Rxn #34	AnalytiCon Plate #3	D11	50	0.551	0.0543	0.551	0.0
Rxn #34	AnalytiCon Plate #3	E11	50	0.551	0.0543	0.551	0.0
Rxn #34	AnalytiCon Plate #3	F11	50	0.487	0.0543	0.551	12.9
Rxn #34	AnalytiCon Plate #3	G11	50	0.548	0.0543	0.551	0.6
Rxn #34	AnalytiCon Plate #3	H11: FOC	-	0.580	0.0543	0.551	-5.8
Rxn #34	AnalytiCon Plate #3	A12: NFC	-	0.057	0.0543	0.551	99.5
Rxn #34	AnalytiCon Plate #3	H12: FOC	-	0.591	0.0543	0.551	-8.1
Rxn #35	AnalytiCon Plate #4	A1: NFC	-	0.042	0.0465	0.470	101.1
Rxn #35	AnalytiCon Plate #4	B1	50	0.361	0.0465	0.470	25.7
Rxn #35	AnalytiCon Plate #4	C1	50	0.393	0.0465	0.470	18.2
Rxn #35	AnalytiCon Plate #4	D1	50	0.388	0.0465	0.470	19.4
Rxn #35	AnalytiCon Plate #4	E1	50	0.396	0.0465	0.470	17.5
Rxn #35	AnalytiCon Plate #4	F1	50	0.457	0.0465	0.470	3.1
Rxn #35	AnalytiCon Plate #4	G1	50	0.439	0.0465	0.470	7.3
Rxn #35	AnalytiCon Plate #4	H1: FOC	-	0.454	0.0465	0.470	3.8
Rxn #35	AnalytiCon Plate #4	A2: NFC	-	0.045	0.0465	0.470	100.4
Rxn #35	AnalytiCon Plate #4	B2	50	0.446	0.0465	0.470	5.7
Rxn #35	AnalytiCon Plate #4	C2	50	0.431	0.0465	0.470	9.2
Rxn #35	AnalytiCon Plate #4	D2	50	0.452	0.0465	0.470	4.3
Rxn #35	AnalytiCon Plate #4	E2	50	0.395	0.0465	0.470	17.7
Rxn #35	AnalytiCon Plate #4	F2	50	0.087	0.0465	0.470	90.4
Rxn #35	AnalytiCon Plate #4	G2	50	0.461	0.0465	0.470	2.1
Rxn #35	AnalytiCon Plate #4	H2: FOC	-	0.471	0.0465	0.470	-0.2
Rxn #35	AnalytiCon Plate #4	A3: NFC	-	0.043	0.0465	0.470	100.8
Rxn #35	AnalytiCon Plate #4	B3	50	0.429	0.0465	0.470	9.7
Rxn #35	AnalytiCon Plate #4	C3	50	0.439	0.0465	0.470	7.3
Rxn #35	AnalytiCon Plate #4	D3	50	0.458	0.0465	0.470	2.8
Rxn #35	AnalytiCon Plate #4	E3	50	0.443	0.0465	0.470	6.4
Rxn #35	AnalytiCon Plate #4	F3	50	0.245	0.0465	0.470	53.1
Rxn #35	AnalytiCon Plate #4	G3	50	0.430	0.0465	0.470	9.4
Rxn #35	AnalytiCon Plate #4	H3: FOC	-	0.470	0.0465	0.470	0.0
Rxn #35	AnalytiCon Plate #4	A4: NFC	-	0.033	0.0465	0.470	103.2
Rxn #35	AnalytiCon Plate #4	B4	50	0.439	0.0465	0.470	7.3

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #35	AnalytiCon Plate #4	C4	50	0.318	0.0465	0.470	35.9
Rxn #35	AnalytiCon Plate #4	D4	50	0.427	0.0465	0.470	10.2
Rxn #35	AnalytiCon Plate #4	E4	50	0.395	0.0465	0.470	17.7
Rxn #35	AnalytiCon Plate #4	F4	50	0.446	0.0465	0.470	5.7
Rxn #35	AnalytiCon Plate #4	G4	50	0.448	0.0465	0.470	5.2
Rxn #35	AnalytiCon Plate #4	H4: FOC	-	0.475	0.0465	0.470	-1.2
Rxn #35	AnalytiCon Plate #4	A5: NFC	-	0.040	0.0465	0.470	101.5
Rxn #35	AnalytiCon Plate #4	B5: NFC	-	0.053	0.0465	0.470	98.5
Rxn #35	AnalytiCon Plate #4	C5: NFC	-	0.048	0.0465	0.470	99.6
Rxn #35	AnalytiCon Plate #4	D5: NFC	-	0.053	0.0465	0.470	98.5
Rxn #35	AnalytiCon Plate #4	E5: FOC	-	0.464	0.0465	0.470	1.4
Rxn #35	AnalytiCon Plate #4	F5: FOC	-	0.470	0.0465	0.470	0.0
Rxn #35	AnalytiCon Plate #4	G5: FOC	-	0.473	0.0465	0.470	-0.7
Rxn #35	AnalytiCon Plate #4	H5: FOC	-	0.479	0.0465	0.470	-2.1
Rxn #35	AnalytiCon Plate #4	A6: NFC	-	0.053	0.0465	0.470	98.5
Rxn #35	AnalytiCon Plate #4	B6	50	0.428	0.0465	0.470	9.9
Rxn #35	AnalytiCon Plate #4	C6	50	0.439	0.0465	0.470	7.3
Rxn #35	AnalytiCon Plate #4	D6	50	0.436	0.0465	0.470	8.0
Rxn #35	AnalytiCon Plate #4	E6	50	0.436	0.0465	0.470	8.0
Rxn #35	AnalytiCon Plate #4	F6	50	0.457	0.0465	0.470	3.1
Rxn #35	AnalytiCon Plate #4	G6	50	0.429	0.0465	0.470	9.7
Rxn #35	AnalytiCon Plate #4	H6: FOC	-	0.478	0.0465	0.470	-1.9
Rxn #35	AnalytiCon Plate #4	A7: NFC	-	0.049	0.0465	0.470	99.4
Rxn #35	AnalytiCon Plate #4	B7	50	0.425	0.0465	0.470	10.6
Rxn #35	AnalytiCon Plate #4	C7	50	0.431	0.0465	0.470	9.2
Rxn #35	AnalytiCon Plate #4	D7	50	0.440	0.0465	0.470	7.1
Rxn #35	AnalytiCon Plate #4	E7	50	0.442	0.0465	0.470	6.6
Rxn #35	AnalytiCon Plate #4	F7	50	0.460	0.0465	0.470	2.4
Rxn #35	AnalytiCon Plate #4	G7	50	0.517	0.0465	0.470	-11.1
Rxn #35	AnalytiCon Plate #4	H7: FOC	-	0.467	0.0465	0.470	0.7
Rxn #35	AnalytiCon Plate #4	A8: NFC	-	0.051	0.0465	0.470	98.9
Rxn #35	AnalytiCon Plate #4	B8	50	0.416	0.0465	0.470	12.8
Rxn #35	AnalytiCon Plate #4	C8	50	0.431	0.0465	0.470	9.2
Rxn #35	AnalytiCon Plate #4	D8	50	0.466	0.0465	0.470	0.9
Rxn #35	AnalytiCon Plate #4	E8	50	0.472	0.0465	0.470	-0.5
Rxn #35	AnalytiCon Plate #4	F8	50	0.462	0.0465	0.470	1.9
Rxn #35	AnalytiCon Plate #4	G8	50	0.453	0.0465	0.470	4.0
Rxn #35	AnalytiCon Plate #4	H8: FOC	-	0.485	0.0465	0.470	-3.5
Rxn #35	AnalytiCon Plate #4	A9: NFC	-	0.046	0.0465	0.470	100.1
Rxn #35	AnalytiCon Plate #4	B9	50	0.502	0.0465	0.470	-7.6
Rxn #35	AnalytiCon Plate #4	C9	50	0.170	0.0465	0.470	70.8
Rxn #35	AnalytiCon Plate #4	D9	50	0.429	0.0465	0.470	9.7
Rxn #35	AnalytiCon Plate #4	E9	50	0.453	0.0465	0.470	4.0
Rxn #35	AnalytiCon Plate #4	F9	50	0.461	0.0465	0.470	2.1
Rxn #35	AnalytiCon Plate #4	G9	50	0.412	0.0465	0.470	13.7
Rxn #35	AnalytiCon Plate #4	H9: FOC	-	0.481	0.0465	0.470	-2.6
Rxn #35	AnalytiCon Plate #4	A10: NFC	-	0.046	0.0465	0.470	100.1
Rxn #35	AnalytiCon Plate #4	B10	50	0.441	0.0465	0.470	6.8
Rxn #35	AnalytiCon Plate #4	C10	50	0.466	0.0465	0.470	0.9
Rxn #35	AnalytiCon Plate #4	D10	50	0.465	0.0465	0.470	1.2
Rxn #35	AnalytiCon Plate #4	E10	50	0.313	0.0465	0.470	37.1
Rxn #35	AnalytiCon Plate #4	F10	50	0.463	0.0465	0.470	1.7
Rxn #35	AnalytiCon Plate #4	G10	50	0.469	0.0465	0.470	0.2
Rxn #35	AnalytiCon Plate #4	H10: FOC	-	0.476	0.0465	0.470	-1.4
Rxn #35	AnalytiCon Plate #4	A11: NFC	-	0.042	0.0465	0.470	101.1
Rxn #35	AnalytiCon Plate #4	B11	50	0.439	0.0465	0.470	7.3
Rxn #35	AnalytiCon Plate #4	C11	50	0.453	0.0465	0.470	4.0
Rxn #35	AnalytiCon Plate #4	D11	50	0.463	0.0465	0.470	1.7
Rxn #35	AnalytiCon Plate #4	E11	50	0.470	0.0465	0.470	0.0
Rxn #35	AnalytiCon Plate #4	F11	50	0.466	0.0465	0.470	0.9
Rxn #35	AnalytiCon Plate #4	G11	50	0.427	0.0465	0.470	10.2
Rxn #35	AnalytiCon Plate #4	H11: FOC	-	0.471	0.0465	0.470	-0.2
Rxn #35	AnalytiCon Plate #4	A12: NFC	-	0.054	0.0465	0.470	98.2
Rxn #35	AnalytiCon Plate #4	H12: FOC	-	0.454	0.0465	0.470	3.8
Rxn #36	AnalytiCon Plate #5	A1: NFC	-	0.090	0.0941	0.611	100.8
Rxn #36	AnalytiCon Plate #5	B1	50	0.518	0.0941	0.611	18.0
Rxn #36	AnalytiCon Plate #5	C1	50	0.518	0.0941	0.611	18.0
Rxn #36	AnalytiCon Plate #5	D1	50	0.585	0.0941	0.611	5.0
Rxn #36	AnalytiCon Plate #5	E1	50	0.517	0.0941	0.611	18.2
Rxn #36	AnalytiCon Plate #5	F1	50	0.583	0.0941	0.611	5.4
Rxn #36	AnalytiCon Plate #5	G1	50	0.565	0.0941	0.611	8.9
Rxn #36	AnalytiCon Plate #5	H1: FOC	-	0.583	0.0941	0.611	5.4
Rxn #36	AnalytiCon Plate #5	A2: NFC	-	0.094	0.0941	0.611	100.0
Rxn #36	AnalytiCon Plate #5	B2	50	0.592	0.0941	0.611	3.7

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #36	AnalytiCon Plate #5	C2	50	0.415	0.0941	0.611	37.9
Rxn #36	AnalytiCon Plate #5	D2	50	0.577	0.0941	0.611	6.6
Rxn #36	AnalytiCon Plate #5	E2	50	0.594	0.0941	0.611	3.3
Rxn #36	AnalytiCon Plate #5	F2	50	0.588	0.0941	0.611	4.4
Rxn #36	AnalytiCon Plate #5	G2	50	0.604	0.0941	0.611	1.4
Rxn #36	AnalytiCon Plate #5	H2: FOC	-	0.615	0.0941	0.611	-0.8
Rxn #36	AnalytiCon Plate #5	A3: NFC	-	0.092	0.0941	0.611	100.4
Rxn #36	AnalytiCon Plate #5	B3	50	0.613	0.0941	0.611	-0.4
Rxn #36	AnalytiCon Plate #5	C3	50	0.617	0.0941	0.611	-1.2
Rxn #36	AnalytiCon Plate #5	D3	50	0.598	0.0941	0.611	2.5
Rxn #36	AnalytiCon Plate #5	E3	50	0.626	0.0941	0.611	-2.9
Rxn #36	AnalytiCon Plate #5	F3	50	0.602	0.0941	0.611	1.7
Rxn #36	AnalytiCon Plate #5	G3	50	0.627	0.0941	0.611	-3.1
Rxn #36	AnalytiCon Plate #5	H3: FOC	-	0.614	0.0941	0.611	-0.6
Rxn #36	AnalytiCon Plate #5	A4: NFC	-	0.084	0.0941	0.611	102.0
Rxn #36	AnalytiCon Plate #5	B4	50	0.624	0.0941	0.611	-2.5
Rxn #36	AnalytiCon Plate #5	C4	50	0.613	0.0941	0.611	-0.4
Rxn #36	AnalytiCon Plate #5	D4	50	0.630	0.0941	0.611	-3.7
Rxn #36	AnalytiCon Plate #5	E4	50	0.613	0.0941	0.611	-0.4
Rxn #36	AnalytiCon Plate #5	F4	50	0.609	0.0941	0.611	0.4
Rxn #36	AnalytiCon Plate #5	G4	50	0.579	0.0941	0.611	6.2
Rxn #36	AnalytiCon Plate #5	H4: FOC	-	0.616	0.0941	0.611	-1.0
Rxn #36	AnalytiCon Plate #5	A5: NFC	-	0.101	0.0941	0.611	98.7
Rxn #36	AnalytiCon Plate #5	B5: NFC	-	0.082	0.0941	0.611	102.3
Rxn #36	AnalytiCon Plate #5	C5: NFC	-	0.079	0.0941	0.611	102.9
Rxn #36	AnalytiCon Plate #5	D5: NFC	-	0.081	0.0941	0.611	102.5
Rxn #36	AnalytiCon Plate #5	E5: FOC	-	0.624	0.0941	0.611	-2.5
Rxn #36	AnalytiCon Plate #5	F5: FOC	-	0.613	0.0941	0.611	-0.4
Rxn #36	AnalytiCon Plate #5	G5: FOC	-	0.604	0.0941	0.611	1.4
Rxn #36	AnalytiCon Plate #5	H5: FOC	-	0.617	0.0941	0.611	-1.2
Rxn #36	AnalytiCon Plate #5	A6: NFC	-	0.093	0.0941	0.611	100.2
Rxn #36	AnalytiCon Plate #5	B6	50	0.602	0.0941	0.611	1.7
Rxn #36	AnalytiCon Plate #5	C6	50	0.545	0.0941	0.611	12.8
Rxn #36	AnalytiCon Plate #5	D6	50	0.605	0.0941	0.611	1.2
Rxn #36	AnalytiCon Plate #5	E6	50	0.619	0.0941	0.611	-1.5
Rxn #36	AnalytiCon Plate #5	F6	50	0.611	0.0941	0.611	0.0
Rxn #36	AnalytiCon Plate #5	G6	50	0.588	0.0941	0.611	4.4
Rxn #36	AnalytiCon Plate #5	H6: FOC	-	0.613	0.0941	0.611	-0.4
Rxn #36	AnalytiCon Plate #5	A7: NFC	-	0.102	0.0941	0.611	98.5
Rxn #36	AnalytiCon Plate #5	B7	50	0.609	0.0941	0.611	0.4
Rxn #36	AnalytiCon Plate #5	C7	50	0.569	0.0941	0.611	8.1
Rxn #36	AnalytiCon Plate #5	D7	50	0.593	0.0941	0.611	3.5
Rxn #36	AnalytiCon Plate #5	E7	50	0.607	0.0941	0.611	0.8
Rxn #36	AnalytiCon Plate #5	F7	50	0.590	0.0941	0.611	4.1
Rxn #36	AnalytiCon Plate #5	G7	50	0.581	0.0941	0.611	5.8
Rxn #36	AnalytiCon Plate #5	H7: FOC	-	0.613	0.0941	0.611	-0.4
Rxn #36	AnalytiCon Plate #5	A8: NFC	-	0.090	0.0941	0.611	100.8
Rxn #36	AnalytiCon Plate #5	B8	50	0.573	0.0941	0.611	7.4
Rxn #36	AnalytiCon Plate #5	C8	50	0.603	0.0941	0.611	1.5
Rxn #36	AnalytiCon Plate #5	D8	50	0.615	0.0941	0.611	-0.8
Rxn #36	AnalytiCon Plate #5	E8	50	0.523	0.0941	0.611	17.0
Rxn #36	AnalytiCon Plate #5	F8	50	0.620	0.0941	0.611	-1.7
Rxn #36	AnalytiCon Plate #5	G8	50	0.615	0.0941	0.611	-0.8
Rxn #36	AnalytiCon Plate #5	H8: FOC	-	0.616	0.0941	0.611	-1.0
Rxn #36	AnalytiCon Plate #5	A9: NFC	-	0.095	0.0941	0.611	99.8
Rxn #36	AnalytiCon Plate #5	B9	50	0.593	0.0941	0.611	3.5
Rxn #36	AnalytiCon Plate #5	C9	50	0.625	0.0941	0.611	-2.7
Rxn #36	AnalytiCon Plate #5	D9	50	0.620	0.0941	0.611	-1.7
Rxn #36	AnalytiCon Plate #5	E9	50	0.620	0.0941	0.611	-1.7
Rxn #36	AnalytiCon Plate #5	F9	50	0.598	0.0941	0.611	2.5
Rxn #36	AnalytiCon Plate #5	G9	50	0.611	0.0941	0.611	0.0
Rxn #36	AnalytiCon Plate #5	H9: FOC	-	0.610	0.0941	0.611	0.2
Rxn #36	AnalytiCon Plate #5	A10: NFC	-	0.108	0.0941	0.611	97.3
Rxn #36	AnalytiCon Plate #5	B10	50	0.617	0.0941	0.611	-1.2
Rxn #36	AnalytiCon Plate #5	C10	50	0.617	0.0941	0.611	-1.2
Rxn #36	AnalytiCon Plate #5	D10	50	0.628	0.0941	0.611	-3.3
Rxn #36	AnalytiCon Plate #5	E10	50	0.615	0.0941	0.611	-0.8
Rxn #36	AnalytiCon Plate #5	F10	50	0.627	0.0941	0.611	-3.1
Rxn #36	AnalytiCon Plate #5	G10	50	0.228	0.0941	0.611	74.1
Rxn #36	AnalytiCon Plate #5	H10: FOC	-	0.639	0.0941	0.611	-5.4
Rxn #36	AnalytiCon Plate #5	A11: NFC	-	0.110	0.0941	0.611	96.9
Rxn #36	AnalytiCon Plate #5	B11	50	0.598	0.0941	0.611	2.5
Rxn #36	AnalytiCon Plate #5	C11	50	0.513	0.0941	0.611	19.0
Rxn #36	AnalytiCon Plate #5	D11	50	0.621	0.0941	0.611	-1.9

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #36	AnalytiCon Plate #5	E11	50	0.635	0.0941	0.611	-4.6
Rxn #36	AnalytiCon Plate #5	F11	50	0.616	0.0941	0.611	-1.0
Rxn #36	AnalytiCon Plate #5	G11	50	0.610	0.0941	0.611	0.2
Rxn #36	AnalytiCon Plate #5	H11: FOC	-	0.631	0.0941	0.611	-3.9
Rxn #36	AnalytiCon Plate #5	A12: NFC	-	0.110	0.0941	0.611	96.9
Rxn #36	AnalytiCon Plate #5	H12: FOC	-	0.602	0.0941	0.611	1.7
Rxn #37	AnalytiCon Plate #6	A1: NFC	-	0.064	0.0954	0.536	107.1
Rxn #37	AnalytiCon Plate #6	B1	50	0.511	0.0954	0.536	5.7
Rxn #37	AnalytiCon Plate #6	C1	50	0.501	0.0954	0.536	7.9
Rxn #37	AnalytiCon Plate #6	D1	50	0.478	0.0954	0.536	13.2
Rxn #37	AnalytiCon Plate #6	E1	50	0.329	0.0954	0.536	47.0
Rxn #37	AnalytiCon Plate #6	F1	50	0.432	0.0954	0.536	23.6
Rxn #37	AnalytiCon Plate #6	G1	50	0.484	0.0954	0.536	11.8
Rxn #37	AnalytiCon Plate #6	H1: FOC	-	0.505	0.0954	0.536	7.0
Rxn #37	AnalytiCon Plate #6	A2: NFC	-	0.131	0.0954	0.536	91.9
Rxn #37	AnalytiCon Plate #6	B2	50	0.552	0.0954	0.536	-3.6
Rxn #37	AnalytiCon Plate #6	C2	50	0.487	0.0954	0.536	11.1
Rxn #37	AnalytiCon Plate #6	D2	50	0.527	0.0954	0.536	2.0
Rxn #37	AnalytiCon Plate #6	E2	50	0.514	0.0954	0.536	5.0
Rxn #37	AnalytiCon Plate #6	F2	50	0.507	0.0954	0.536	6.6
Rxn #37	AnalytiCon Plate #6	G2	50	0.459	0.0954	0.536	17.5
Rxn #37	AnalytiCon Plate #6	H2: FOC	-	0.538	0.0954	0.536	-0.5
Rxn #37	AnalytiCon Plate #6	A3: NFC	-	0.094	0.0954	0.536	100.3
Rxn #37	AnalytiCon Plate #6	B3	50	0.546	0.0954	0.536	-2.3
Rxn #37	AnalytiCon Plate #6	C3	50	0.511	0.0954	0.536	5.7
Rxn #37	AnalytiCon Plate #6	D3	50	0.496	0.0954	0.536	9.1
Rxn #37	AnalytiCon Plate #6	E3	50	0.463	0.0954	0.536	16.6
Rxn #37	AnalytiCon Plate #6	F3	50	0.529	0.0954	0.536	1.6
Rxn #37	AnalytiCon Plate #6	G3	50	0.503	0.0954	0.536	7.5
Rxn #37	AnalytiCon Plate #6	H3: FOC	-	0.541	0.0954	0.536	-1.1
Rxn #37	AnalytiCon Plate #6	A4: NFC	-	0.087	0.0954	0.536	101.9
Rxn #37	AnalytiCon Plate #6	B4	50	0.544	0.0954	0.536	-1.8
Rxn #37	AnalytiCon Plate #6	C4	50	0.534	0.0954	0.536	0.5
Rxn #37	AnalytiCon Plate #6	D4	50	0.473	0.0954	0.536	14.3
Rxn #37	AnalytiCon Plate #6	E4	50	0.514	0.0954	0.536	5.0
Rxn #37	AnalytiCon Plate #6	F4	50	0.512	0.0954	0.536	5.4
Rxn #37	AnalytiCon Plate #6	G4	50	0.517	0.0954	0.536	4.3
Rxn #37	AnalytiCon Plate #6	H4: FOC	-	0.538	0.0954	0.536	-0.5
Rxn #37	AnalytiCon Plate #6	A5: NFC	-	0.094	0.0954	0.536	100.3
Rxn #37	AnalytiCon Plate #6	B5: NFC	-	0.081	0.0954	0.536	103.3
Rxn #37	AnalytiCon Plate #6	C5: NFC	-	0.072	0.0954	0.536	105.3
Rxn #37	AnalytiCon Plate #6	D5: NFC	-	0.093	0.0954	0.536	100.5
Rxn #37	AnalytiCon Plate #6	E5: FOC	-	0.537	0.0954	0.536	-0.2
Rxn #37	AnalytiCon Plate #6	F5: FOC	-	0.527	0.0954	0.536	2.0
Rxn #37	AnalytiCon Plate #6	G5: FOC	-	0.530	0.0954	0.536	1.4
Rxn #37	AnalytiCon Plate #6	H5: FOC	-	0.552	0.0954	0.536	-3.6
Rxn #37	AnalytiCon Plate #6	A6: NFC	-	0.099	0.0954	0.536	99.2
Rxn #37	AnalytiCon Plate #6	B6	50	0.548	0.0954	0.536	-2.7
Rxn #37	AnalytiCon Plate #6	C6	50	0.543	0.0954	0.536	-1.6
Rxn #37	AnalytiCon Plate #6	D6	50	0.526	0.0954	0.536	2.3
Rxn #37	AnalytiCon Plate #6	E6	50	0.529	0.0954	0.536	1.6
Rxn #37	AnalytiCon Plate #6	F6	50	0.518	0.0954	0.536	4.1
Rxn #37	AnalytiCon Plate #6	G6	50	0.509	0.0954	0.536	6.1
Rxn #37	AnalytiCon Plate #6	H6: FOC	-	0.547	0.0954	0.536	-2.5
Rxn #37	AnalytiCon Plate #6	A7: NFC	-	0.095	0.0954	0.536	100.1
Rxn #37	AnalytiCon Plate #6	B7	50	0.542	0.0954	0.536	-1.4
Rxn #37	AnalytiCon Plate #6	C7	50	0.545	0.0954	0.536	-2.0
Rxn #37	AnalytiCon Plate #6	D7	50	0.508	0.0954	0.536	6.4
Rxn #37	AnalytiCon Plate #6	E7	50	0.530	0.0954	0.536	1.4
Rxn #37	AnalytiCon Plate #6	F7	50	0.462	0.0954	0.536	16.8
Rxn #37	AnalytiCon Plate #6	G7	50	0.495	0.0954	0.536	9.3
Rxn #37	AnalytiCon Plate #6	H7: FOC	-	0.543	0.0954	0.536	-1.6
Rxn #37	AnalytiCon Plate #6	A8: NFC	-	0.091	0.0954	0.536	101.0
Rxn #37	AnalytiCon Plate #6	B8	50	0.530	0.0954	0.536	1.4
Rxn #37	AnalytiCon Plate #6	C8	50	0.543	0.0954	0.536	-1.6
Rxn #37	AnalytiCon Plate #6	D8	50	0.483	0.0954	0.536	12.0
Rxn #37	AnalytiCon Plate #6	E8	50	0.482	0.0954	0.536	12.3
Rxn #37	AnalytiCon Plate #6	F8	50	0.486	0.0954	0.536	11.3
Rxn #37	AnalytiCon Plate #6	G8	50	0.474	0.0954	0.536	14.1
Rxn #37	AnalytiCon Plate #6	H8: FOC	-	0.547	0.0954	0.536	-2.5
Rxn #37	AnalytiCon Plate #6	A9: NFC	-	0.091	0.0954	0.536	101.0
Rxn #37	AnalytiCon Plate #6	B9	50	0.540	0.0954	0.536	-0.9
Rxn #37	AnalytiCon Plate #6	C9	50	0.530	0.0954	0.536	1.4
Rxn #37	AnalytiCon Plate #6	D9	50	0.515	0.0954	0.536	4.8

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #37	AnalytiCon Plate #6	E9	50	0.512	0.0954	0.536	5.4
Rxn #37	AnalytiCon Plate #6	F9	50	0.521	0.0954	0.536	3.4
Rxn #37	AnalytiCon Plate #6	G9	50	0.471	0.0954	0.536	14.8
Rxn #37	AnalytiCon Plate #6	H9: FOC	-	0.548	0.0954	0.536	-2.7
Rxn #37	AnalytiCon Plate #6	A10: NFC	-	0.095	0.0954	0.536	100.1
Rxn #37	AnalytiCon Plate #6	B10	50	0.458	0.0954	0.536	17.7
Rxn #37	AnalytiCon Plate #6	C10	50	0.526	0.0954	0.536	2.3
Rxn #37	AnalytiCon Plate #6	D10	50	0.517	0.0954	0.536	4.3
Rxn #37	AnalytiCon Plate #6	E10	50	0.514	0.0954	0.536	5.0
Rxn #37	AnalytiCon Plate #6	F10	50	0.519	0.0954	0.536	3.9
Rxn #37	AnalytiCon Plate #6	G10	50	0.478	0.0954	0.536	13.2
Rxn #37	AnalytiCon Plate #6	H10: FOC	-	0.557	0.0954	0.536	-4.8
Rxn #37	AnalytiCon Plate #6	A11: NFC	-	0.142	0.0954	0.536	89.4
Rxn #37	AnalytiCon Plate #6	B11	50	0.549	0.0954	0.536	-3.0
Rxn #37	AnalytiCon Plate #6	C11	50	0.456	0.0954	0.536	18.2
Rxn #37	AnalytiCon Plate #6	D11	50	0.518	0.0954	0.536	4.1
Rxn #37	AnalytiCon Plate #6	E11	50	0.472	0.0954	0.536	14.5
Rxn #37	AnalytiCon Plate #6	F11	50	0.532	0.0954	0.536	0.9
Rxn #37	AnalytiCon Plate #6	G11	50	0.531	0.0954	0.536	1.1
Rxn #37	AnalytiCon Plate #6	H11: FOC	-	0.542	0.0954	0.536	-1.4
Rxn #37	AnalytiCon Plate #6	A12: NFC	-	0.102	0.0954	0.536	98.5
Rxn #37	AnalytiCon Plate #6	H12: FOC	-	0.550	0.0954	0.536	-3.2
Rxn #38	AnalytiCon Plate #7	A1: NFC	-	0.071	0.0664	0.621	99.2
Rxn #38	AnalytiCon Plate #7	B1	50	0.580	0.0664	0.621	7.4
Rxn #38	AnalytiCon Plate #7	C1	50	0.574	0.0664	0.621	8.5
Rxn #38	AnalytiCon Plate #7	D1	50	0.520	0.0664	0.621	18.2
Rxn #38	AnalytiCon Plate #7	E1	50	0.527	0.0664	0.621	16.9
Rxn #38	AnalytiCon Plate #7	F1	50	0.565	0.0664	0.621	10.1
Rxn #38	AnalytiCon Plate #7	G1	50	0.587	0.0664	0.621	6.1
Rxn #38	AnalytiCon Plate #7	H1: FOC	-	0.609	0.0664	0.621	2.2
Rxn #38	AnalytiCon Plate #7	A2: NFC	-	0.086	0.0664	0.621	96.5
Rxn #38	AnalytiCon Plate #7	B2	50	0.636	0.0664	0.621	-2.7
Rxn #38	AnalytiCon Plate #7	C2	50	0.613	0.0664	0.621	1.4
Rxn #38	AnalytiCon Plate #7	D2	50	0.597	0.0664	0.621	4.3
Rxn #38	AnalytiCon Plate #7	E2	50	0.570	0.0664	0.621	9.2
Rxn #38	AnalytiCon Plate #7	F2	50	0.623	0.0664	0.621	-0.4
Rxn #38	AnalytiCon Plate #7	G2	50	0.597	0.0664	0.621	4.3
Rxn #38	AnalytiCon Plate #7	H2: FOC	-	0.617	0.0664	0.621	0.7
Rxn #38	AnalytiCon Plate #7	A3: NFC	-	0.063	0.0664	0.621	100.6
Rxn #38	AnalytiCon Plate #7	B3	50	0.554	0.0664	0.621	12.1
Rxn #38	AnalytiCon Plate #7	C3	50	0.631	0.0664	0.621	-1.8
Rxn #38	AnalytiCon Plate #7	D3	50	0.574	0.0664	0.621	8.5
Rxn #38	AnalytiCon Plate #7	E3	50	0.595	0.0664	0.621	4.7
Rxn #38	AnalytiCon Plate #7	F3	50	0.593	0.0664	0.621	5.0
Rxn #38	AnalytiCon Plate #7	G3	50	0.539	0.0664	0.621	14.8
Rxn #38	AnalytiCon Plate #7	H3: FOC	-	0.622	0.0664	0.621	-0.2
Rxn #38	AnalytiCon Plate #7	A4: NFC	-	0.059	0.0664	0.621	101.3
Rxn #38	AnalytiCon Plate #7	B4	50	0.608	0.0664	0.621	2.3
Rxn #38	AnalytiCon Plate #7	C4	50	0.568	0.0664	0.621	9.6
Rxn #38	AnalytiCon Plate #7	D4	50	0.540	0.0664	0.621	14.6
Rxn #38	AnalytiCon Plate #7	E4	50	0.581	0.0664	0.621	7.2
Rxn #38	AnalytiCon Plate #7	F4	50	0.607	0.0664	0.621	2.5
Rxn #38	AnalytiCon Plate #7	G4	50	0.581	0.0664	0.621	7.2
Rxn #38	AnalytiCon Plate #7	H4: FOC	-	0.616	0.0664	0.621	0.9
Rxn #38	AnalytiCon Plate #7	A5: NFC	-	0.072	0.0664	0.621	99.0
Rxn #38	AnalytiCon Plate #7	B5: NFC	-	0.065	0.0664	0.621	100.3
Rxn #38	AnalytiCon Plate #7	C5: NFC	-	0.076	0.0664	0.621	98.3
Rxn #38	AnalytiCon Plate #7	D5: NFC	-	0.074	0.0664	0.621	98.6
Rxn #38	AnalytiCon Plate #7	E5: FOC	-	0.618	0.0664	0.621	0.5
Rxn #38	AnalytiCon Plate #7	F5: FOC	-	0.613	0.0664	0.621	1.4
Rxn #38	AnalytiCon Plate #7	G5: FOC	-	0.625	0.0664	0.621	-0.7
Rxn #38	AnalytiCon Plate #7	H5: FOC	-	0.630	0.0664	0.621	-1.6
Rxn #38	AnalytiCon Plate #7	A6: NFC	-	0.066	0.0664	0.621	100.1
Rxn #38	AnalytiCon Plate #7	B6	50	0.574	0.0664	0.621	8.5
Rxn #38	AnalytiCon Plate #7	C6	50	0.609	0.0664	0.621	2.2
Rxn #38	AnalytiCon Plate #7	D6	50	0.597	0.0664	0.621	4.3
Rxn #38	AnalytiCon Plate #7	E6	50	0.607	0.0664	0.621	2.5
Rxn #38	AnalytiCon Plate #7	F6	50	0.582	0.0664	0.621	7.0
Rxn #38	AnalytiCon Plate #7	G6	50	0.550	0.0664	0.621	12.8
Rxn #38	AnalytiCon Plate #7	H6: FOC	-	0.629	0.0664	0.621	-1.4
Rxn #38	AnalytiCon Plate #7	A7: NFC	-	0.069	0.0664	0.621	99.5
Rxn #38	AnalytiCon Plate #7	B7	50	0.626	0.0664	0.621	-0.9
Rxn #38	AnalytiCon Plate #7	C7	50	0.573	0.0664	0.621	8.7
Rxn #38	AnalytiCon Plate #7	D7	50	0.542	0.0664	0.621	14.2



**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #38	AnalytiCon Plate #7	E7	50	0.553	0.0664	0.621	12.3
Rxn #38	AnalytiCon Plate #7	F7	50	0.550	0.0664	0.621	12.8
Rxn #38	AnalytiCon Plate #7	G7	50	0.582	0.0664	0.621	7.0
Rxn #38	AnalytiCon Plate #7	H7: FOC	-	0.626	0.0664	0.621	-0.9
Rxn #38	AnalytiCon Plate #7	A8: NFC	-	0.051	0.0664	0.621	102.8
Rxn #38	AnalytiCon Plate #7	B8	50	0.620	0.0664	0.621	0.2
Rxn #38	AnalytiCon Plate #7	C8	50	0.585	0.0664	0.621	6.5
Rxn #38	AnalytiCon Plate #7	D8	50	0.578	0.0664	0.621	7.8
Rxn #38	AnalytiCon Plate #7	E8	50	0.458	0.0664	0.621	29.4
Rxn #38	AnalytiCon Plate #7	F8	50	0.456	0.0664	0.621	29.8
Rxn #38	AnalytiCon Plate #7	G8	50	0.550	0.0664	0.621	12.8
Rxn #38	AnalytiCon Plate #7	H8: FOC	-	0.621	0.0664	0.621	0.0
Rxn #38	AnalytiCon Plate #7	A9: NFC	-	0.066	0.0664	0.621	100.1
Rxn #38	AnalytiCon Plate #7	B9	50	0.591	0.0664	0.621	5.4
Rxn #38	AnalytiCon Plate #7	C9	50	0.580	0.0664	0.621	7.4
Rxn #38	AnalytiCon Plate #7	D9	50	0.560	0.0664	0.621	11.0
Rxn #38	AnalytiCon Plate #7	E9	50	0.578	0.0664	0.621	7.8
Rxn #38	AnalytiCon Plate #7	F9	50	0.581	0.0664	0.621	7.2
Rxn #38	AnalytiCon Plate #7	G9	50	0.585	0.0664	0.621	6.5
Rxn #38	AnalytiCon Plate #7	H9: FOC	-	0.623	0.0664	0.621	-0.4
Rxn #38	AnalytiCon Plate #7	A10: NFC	-	0.064	0.0664	0.621	100.4
Rxn #38	AnalytiCon Plate #7	B10	50	0.600	0.0664	0.621	3.8
Rxn #38	AnalytiCon Plate #7	C10	50	0.584	0.0664	0.621	6.7
Rxn #38	AnalytiCon Plate #7	D10	50	0.568	0.0664	0.621	9.6
Rxn #38	AnalytiCon Plate #7	E10	50	0.557	0.0664	0.621	11.5
Rxn #38	AnalytiCon Plate #7	F10	50	0.583	0.0664	0.621	6.9
Rxn #38	AnalytiCon Plate #7	G10	50	0.545	0.0664	0.621	13.7
Rxn #38	AnalytiCon Plate #7	H10: FOC	-	0.632	0.0664	0.621	-2.0
Rxn #38	AnalytiCon Plate #7	A11: NFC	-	0.061	0.0664	0.621	101.0
Rxn #38	AnalytiCon Plate #7	B11	50	0.597	0.0664	0.621	4.3
Rxn #38	AnalytiCon Plate #7	C11	50	0.548	0.0664	0.621	13.2
Rxn #38	AnalytiCon Plate #7	D11	50	0.526	0.0664	0.621	17.1
Rxn #38	AnalytiCon Plate #7	E11	50	0.544	0.0664	0.621	13.9
Rxn #38	AnalytiCon Plate #7	F11	50	0.578	0.0664	0.621	7.8
Rxn #38	AnalytiCon Plate #7	G11	50	0.593	0.0664	0.621	5.0
Rxn #38	AnalytiCon Plate #7	H11: FOC	-	0.649	0.0664	0.621	-5.0
Rxn #38	AnalytiCon Plate #7	A12: NFC	-	0.053	0.0664	0.621	102.4
Rxn #38	AnalytiCon Plate #7	H12: FOC	-	0.630	0.0664	0.621	-1.6
Rxn #39	AnalytiCon Plate #8	A1: NFC	-	0.080	0.0789	0.392	99.6
Rxn #39	AnalytiCon Plate #8	B1	50	0.351	0.0789	0.392	13.1
Rxn #39	AnalytiCon Plate #8	C1	50	0.310	0.0789	0.392	26.2
Rxn #39	AnalytiCon Plate #8	D1	50	0.364	0.0789	0.392	8.9
Rxn #39	AnalytiCon Plate #8	E1	50	0.351	0.0789	0.392	13.1
Rxn #39	AnalytiCon Plate #8	F1	50	0.297	0.0789	0.392	30.3
Rxn #39	AnalytiCon Plate #8	G1	50	0.363	0.0789	0.392	9.3
Rxn #39	AnalytiCon Plate #8	H1: FOC	-	0.374	0.0789	0.392	5.7
Rxn #39	AnalytiCon Plate #8	A2: NFC	-	0.080	0.0789	0.392	99.6
Rxn #39	AnalytiCon Plate #8	B2	50	0.389	0.0789	0.392	1.0
Rxn #39	AnalytiCon Plate #8	C2	50	0.338	0.0789	0.392	17.2
Rxn #39	AnalytiCon Plate #8	D2	50	0.360	0.0789	0.392	10.2
Rxn #39	AnalytiCon Plate #8	E2	50	0.386	0.0789	0.392	1.9
Rxn #39	AnalytiCon Plate #8	F2	50	0.378	0.0789	0.392	4.5
Rxn #39	AnalytiCon Plate #8	G2	50	0.386	0.0789	0.392	1.9
Rxn #39	AnalytiCon Plate #8	H2: FOC	-	0.386	0.0789	0.392	1.9
Rxn #39	AnalytiCon Plate #8	A3: NFC	-	0.088	0.0789	0.392	97.1
Rxn #39	AnalytiCon Plate #8	B3	50	0.385	0.0789	0.392	2.2
Rxn #39	AnalytiCon Plate #8	C3	50	0.369	0.0789	0.392	7.3
Rxn #39	AnalytiCon Plate #8	D3	50	0.366	0.0789	0.392	8.3
Rxn #39	AnalytiCon Plate #8	E3	50	0.358	0.0789	0.392	10.9
Rxn #39	AnalytiCon Plate #8	F3	50	0.393	0.0789	0.392	-0.3
Rxn #39	AnalytiCon Plate #8	G3	50	0.383	0.0789	0.392	2.9
Rxn #39	AnalytiCon Plate #8	H3: FOC	-	0.394	0.0789	0.392	-0.6
Rxn #39	AnalytiCon Plate #8	A4: NFC	-	0.075	0.0789	0.392	101.2
Rxn #39	AnalytiCon Plate #8	B4	50	0.371	0.0789	0.392	6.7
Rxn #39	AnalytiCon Plate #8	C4	50	0.387	0.0789	0.392	1.6
Rxn #39	AnalytiCon Plate #8	D4	50	0.390	0.0789	0.392	0.6
Rxn #39	AnalytiCon Plate #8	E4	50	0.370	0.0789	0.392	7.0
Rxn #39	AnalytiCon Plate #8	F4	50	0.391	0.0789	0.392	0.3
Rxn #39	AnalytiCon Plate #8	G4	50	0.389	0.0789	0.392	1.0
Rxn #39	AnalytiCon Plate #8	H4: FOC	-	0.395	0.0789	0.392	-1.0
Rxn #39	AnalytiCon Plate #8	A5: NFC	-	0.088	0.0789	0.392	97.1
Rxn #39	AnalytiCon Plate #8	B5: NFC	-	0.071	0.0789	0.392	102.5
Rxn #39	AnalytiCon Plate #8	C5: NFC	-	0.052	0.0789	0.392	108.6
Rxn #39	AnalytiCon Plate #8	D5: NFC	-	0.065	0.0789	0.392	104.4

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #39	AnalytiCon Plate #8	E5: FOC	-	0.384	0.0789	0.392	2.6
Rxn #39	AnalytiCon Plate #8	F5: FOC	-	0.405	0.0789	0.392	-4.2
Rxn #39	AnalytiCon Plate #8	G5: FOC	-	0.395	0.0789	0.392	-1.0
Rxn #39	AnalytiCon Plate #8	H5: FOC	-	0.395	0.0789	0.392	-1.0
Rxn #39	AnalytiCon Plate #8	A6: NFC	-	0.071	0.0789	0.392	102.5
Rxn #39	AnalytiCon Plate #8	B6	50	0.359	0.0789	0.392	10.5
Rxn #39	AnalytiCon Plate #8	C6	50	0.386	0.0789	0.392	1.9
Rxn #39	AnalytiCon Plate #8	D6	50	0.395	0.0789	0.392	-1.0
Rxn #39	AnalytiCon Plate #8	E6	50	0.362	0.0789	0.392	9.6
Rxn #39	AnalytiCon Plate #8	F6	50	0.390	0.0789	0.392	0.6
Rxn #39	AnalytiCon Plate #8	G6	50	0.393	0.0789	0.392	-0.3
Rxn #39	AnalytiCon Plate #8	H6: FOC	-	0.403	0.0789	0.392	-3.5
Rxn #39	AnalytiCon Plate #8	A7: NFC	-	0.075	0.0789	0.392	101.2
Rxn #39	AnalytiCon Plate #8	B7	50	0.359	0.0789	0.392	10.5
Rxn #39	AnalytiCon Plate #8	C7	50	0.387	0.0789	0.392	1.6
Rxn #39	AnalytiCon Plate #8	D7	50	0.380	0.0789	0.392	3.8
Rxn #39	AnalytiCon Plate #8	E7	50	0.389	0.0789	0.392	1.0
Rxn #39	AnalytiCon Plate #8	F7	50	0.346	0.0789	0.392	14.7
Rxn #39	AnalytiCon Plate #8	G7	50	0.339	0.0789	0.392	16.9
Rxn #39	AnalytiCon Plate #8	H7: FOC	-	0.392	0.0789	0.392	0.0
Rxn #39	AnalytiCon Plate #8	A8: NFC	-	0.082	0.0789	0.392	99.0
Rxn #39	AnalytiCon Plate #8	B8	50	0.350	0.0789	0.392	13.4
Rxn #39	AnalytiCon Plate #8	C8	50	0.393	0.0789	0.392	-0.3
Rxn #39	AnalytiCon Plate #8	D8	50	0.384	0.0789	0.392	2.6
Rxn #39	AnalytiCon Plate #8	E8	50	0.386	0.0789	0.392	1.9
Rxn #39	AnalytiCon Plate #8	F8	50	0.389	0.0789	0.392	1.0
Rxn #39	AnalytiCon Plate #8	G8	50	0.354	0.0789	0.392	12.1
Rxn #39	AnalytiCon Plate #8	H8: FOC	-	0.408	0.0789	0.392	-5.1
Rxn #39	AnalytiCon Plate #8	A9: NFC	-	0.090	0.0789	0.392	96.5
Rxn #39	AnalytiCon Plate #8	B9	50	0.371	0.0789	0.392	6.7
Rxn #39	AnalytiCon Plate #8	C9	50	0.349	0.0789	0.392	13.7
Rxn #39	AnalytiCon Plate #8	D9	50	0.400	0.0789	0.392	-2.6
Rxn #39	AnalytiCon Plate #8	E9	50	0.357	0.0789	0.392	11.2
Rxn #39	AnalytiCon Plate #8	F9	50	0.377	0.0789	0.392	4.8
Rxn #39	AnalytiCon Plate #8	G9	50	0.383	0.0789	0.392	2.9
Rxn #39	AnalytiCon Plate #8	H9: FOC	-	0.398	0.0789	0.392	-1.9
Rxn #39	AnalytiCon Plate #8	A10: NFC	-	0.094	0.0789	0.392	95.2
Rxn #39	AnalytiCon Plate #8	B10	50	0.400	0.0789	0.392	-2.6
Rxn #39	AnalytiCon Plate #8	C10	50	0.382	0.0789	0.392	3.2
Rxn #39	AnalytiCon Plate #8	D10	50	0.392	0.0789	0.392	0.0
Rxn #39	AnalytiCon Plate #8	E10	50	0.356	0.0789	0.392	11.5
Rxn #39	AnalytiCon Plate #8	F10	50	0.324	0.0789	0.392	21.7
Rxn #39	AnalytiCon Plate #8	G10	50	0.332	0.0789	0.392	19.2
Rxn #39	AnalytiCon Plate #8	H10: FOC	-	0.409	0.0789	0.392	-5.4
Rxn #39	AnalytiCon Plate #8	A11: NFC	-	0.084	0.0789	0.392	98.4
Rxn #39	AnalytiCon Plate #8	B11	50	0.334	0.0789	0.392	18.5
Rxn #39	AnalytiCon Plate #8	C11	50	0.344	0.0789	0.392	15.3
Rxn #39	AnalytiCon Plate #8	D11	50	0.309	0.0789	0.392	26.5
Rxn #39	AnalytiCon Plate #8	E11	50	0.388	0.0789	0.392	1.3
Rxn #39	AnalytiCon Plate #8	F11	50	0.381	0.0789	0.392	3.5
Rxn #39	AnalytiCon Plate #8	G11	50	0.395	0.0789	0.392	-1.0
Rxn #39	AnalytiCon Plate #8	H11: FOC	-	0.409	0.0789	0.392	-5.4
Rxn #39	AnalytiCon Plate #8	A12: NFC	-	0.089	0.0789	0.392	96.8
Rxn #39	AnalytiCon Plate #8	H12: FOC	-	0.409	0.0789	0.392	-5.4
Rxn #40	AnalytiCon Plate #9	A1: NFC	-	0.058	0.0629	0.483	101.2
Rxn #40	AnalytiCon Plate #9	B1	50	0.448	0.0629	0.483	8.3
Rxn #40	AnalytiCon Plate #9	C1	50	0.445	0.0629	0.483	9.0
Rxn #40	AnalytiCon Plate #9	D1	50	0.413	0.0629	0.483	16.7
Rxn #40	AnalytiCon Plate #9	E1	50	0.433	0.0629	0.483	11.9
Rxn #40	AnalytiCon Plate #9	F1	50	0.440	0.0629	0.483	10.2
Rxn #40	AnalytiCon Plate #9	G1	50	0.434	0.0629	0.483	11.7
Rxn #40	AnalytiCon Plate #9	H1: FOC	-	0.457	0.0629	0.483	6.2
Rxn #40	AnalytiCon Plate #9	A2: NFC	-	0.062	0.0629	0.483	100.2
Rxn #40	AnalytiCon Plate #9	B2	50	0.453	0.0629	0.483	7.1
Rxn #40	AnalytiCon Plate #9	C2	50	0.420	0.0629	0.483	15.0
Rxn #40	AnalytiCon Plate #9	D2	50	0.430	0.0629	0.483	12.6
Rxn #40	AnalytiCon Plate #9	E2	50	0.401	0.0629	0.483	19.5
Rxn #40	AnalytiCon Plate #9	F2	50	0.443	0.0629	0.483	9.5
Rxn #40	AnalytiCon Plate #9	G2	50	0.452	0.0629	0.483	7.4
Rxn #40	AnalytiCon Plate #9	H2: FOC	-	0.482	0.0629	0.483	0.2
Rxn #40	AnalytiCon Plate #9	A3: NFC	-	0.062	0.0629	0.483	100.2
Rxn #40	AnalytiCon Plate #9	B3	50	0.347	0.0629	0.483	32.4
Rxn #40	AnalytiCon Plate #9	C3	50	0.467	0.0629	0.483	3.8
Rxn #40	AnalytiCon Plate #9	D3	50	0.379	0.0629	0.483	24.8

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #40	AnalytiCon Plate #9	E3	50	0.461	0.0629	0.483	5.2
Rxn #40	AnalytiCon Plate #9	F3	50	0.458	0.0629	0.483	6.0
Rxn #40	AnalytiCon Plate #9	G3	50	0.451	0.0629	0.483	7.6
Rxn #40	AnalytiCon Plate #9	H3: FOC	-	0.479	0.0629	0.483	1.0
Rxn #40	AnalytiCon Plate #9	A4: NFC	-	0.059	0.0629	0.483	100.9
Rxn #40	AnalytiCon Plate #9	B4	50	0.461	0.0629	0.483	5.2
Rxn #40	AnalytiCon Plate #9	C4	50	0.466	0.0629	0.483	4.0
Rxn #40	AnalytiCon Plate #9	D4	50	0.476	0.0629	0.483	1.7
Rxn #40	AnalytiCon Plate #9	E4	50	0.470	0.0629	0.483	3.1
Rxn #40	AnalytiCon Plate #9	F4	50	0.375	0.0629	0.483	25.7
Rxn #40	AnalytiCon Plate #9	G4	50	0.453	0.0629	0.483	7.1
Rxn #40	AnalytiCon Plate #9	H4: FOC	-	0.483	0.0629	0.483	0.0
Rxn #40	AnalytiCon Plate #9	A5: NFC	-	0.063	0.0629	0.483	100.0
Rxn #40	AnalytiCon Plate #9	B5: NFC	-	0.057	0.0629	0.483	101.4
Rxn #40	AnalytiCon Plate #9	C5: NFC	-	0.055	0.0629	0.483	101.9
Rxn #40	AnalytiCon Plate #9	D5: NFC	-	0.055	0.0629	0.483	101.9
Rxn #40	AnalytiCon Plate #9	E5: FOC	-	0.483	0.0629	0.483	0.0
Rxn #40	AnalytiCon Plate #9	F5: FOC	-	0.482	0.0629	0.483	0.2
Rxn #40	AnalytiCon Plate #9	G5: FOC	-	0.478	0.0629	0.483	1.2
Rxn #40	AnalytiCon Plate #9	H5: FOC	-	0.500	0.0629	0.483	-4.0
Rxn #40	AnalytiCon Plate #9	A6: NFC	-	0.065	0.0629	0.483	99.5
Rxn #40	AnalytiCon Plate #9	B6	50	0.485	0.0629	0.483	-0.5
Rxn #40	AnalytiCon Plate #9	C6	50	0.478	0.0629	0.483	1.2
Rxn #40	AnalytiCon Plate #9	D6	50	0.483	0.0629	0.483	0.0
Rxn #40	AnalytiCon Plate #9	E6	50	0.465	0.0629	0.483	4.3
Rxn #40	AnalytiCon Plate #9	F6	50	0.449	0.0629	0.483	8.1
Rxn #40	AnalytiCon Plate #9	G6	50	0.460	0.0629	0.483	5.5
Rxn #40	AnalytiCon Plate #9	H6: FOC	-	0.488	0.0629	0.483	-1.2
Rxn #40	AnalytiCon Plate #9	A7: NFC	-	0.064	0.0629	0.483	99.7
Rxn #40	AnalytiCon Plate #9	B7	50	0.485	0.0629	0.483	-0.5
Rxn #40	AnalytiCon Plate #9	C7	50	0.413	0.0629	0.483	16.7
Rxn #40	AnalytiCon Plate #9	D7	50	0.460	0.0629	0.483	5.5
Rxn #40	AnalytiCon Plate #9	E7	50	0.383	0.0629	0.483	23.8
Rxn #40	AnalytiCon Plate #9	F7	50	0.457	0.0629	0.483	6.2
Rxn #40	AnalytiCon Plate #9	G7	50	0.468	0.0629	0.483	3.6
Rxn #40	AnalytiCon Plate #9	H7: FOC	-	0.495	0.0629	0.483	-2.9
Rxn #40	AnalytiCon Plate #9	A8: NFC	-	0.071	0.0629	0.483	98.1
Rxn #40	AnalytiCon Plate #9	B8	50	0.493	0.0629	0.483	-2.4
Rxn #40	AnalytiCon Plate #9	C8	50	0.437	0.0629	0.483	10.9
Rxn #40	AnalytiCon Plate #9	D8	50	0.484	0.0629	0.483	-0.2
Rxn #40	AnalytiCon Plate #9	E8	50	0.453	0.0629	0.483	7.1
Rxn #40	AnalytiCon Plate #9	F8	50	0.469	0.0629	0.483	3.3
Rxn #40	AnalytiCon Plate #9	G8	50	0.381	0.0629	0.483	24.3
Rxn #40	AnalytiCon Plate #9	H8: FOC	-	0.491	0.0629	0.483	-1.9
Rxn #40	AnalytiCon Plate #9	A9: NFC	-	0.064	0.0629	0.483	99.7
Rxn #40	AnalytiCon Plate #9	B9	50	0.491	0.0629	0.483	-1.9
Rxn #40	AnalytiCon Plate #9	C9	50	0.464	0.0629	0.483	4.5
Rxn #40	AnalytiCon Plate #9	D9	50	0.410	0.0629	0.483	17.4
Rxn #40	AnalytiCon Plate #9	E9	50	0.492	0.0629	0.483	-2.1
Rxn #40	AnalytiCon Plate #9	F9	50	0.477	0.0629	0.483	1.4
Rxn #40	AnalytiCon Plate #9	G9	50	0.446	0.0629	0.483	8.8
Rxn #40	AnalytiCon Plate #9	H9: FOC	-	0.511	0.0629	0.483	-6.7
Rxn #40	AnalytiCon Plate #9	A10: NFC	-	0.067	0.0629	0.483	99.0
Rxn #40	AnalytiCon Plate #9	B10	50	0.484	0.0629	0.483	-0.2
Rxn #40	AnalytiCon Plate #9	C10	50	0.475	0.0629	0.483	1.9
Rxn #40	AnalytiCon Plate #9	D10	50	0.513	0.0629	0.483	-7.1
Rxn #40	AnalytiCon Plate #9	E10	50	0.477	0.0629	0.483	1.4
Rxn #40	AnalytiCon Plate #9	F10	50	0.466	0.0629	0.483	4.0
Rxn #40	AnalytiCon Plate #9	G10	50	0.481	0.0629	0.483	0.5
Rxn #40	AnalytiCon Plate #9	H10: FOC	-	0.507	0.0629	0.483	-5.7
Rxn #40	AnalytiCon Plate #9	A11: NFC	-	0.068	0.0629	0.483	98.8
Rxn #40	AnalytiCon Plate #9	B11	50	0.483	0.0629	0.483	0.0
Rxn #40	AnalytiCon Plate #9	C11	50	0.515	0.0629	0.483	-7.6
Rxn #40	AnalytiCon Plate #9	D11	50	0.508	0.0629	0.483	-6.0
Rxn #40	AnalytiCon Plate #9	E11	50	0.506	0.0629	0.483	-5.5
Rxn #40	AnalytiCon Plate #9	F11	50	0.492	0.0629	0.483	-2.1
Rxn #40	AnalytiCon Plate #9	G11	50	0.505	0.0629	0.483	-5.2
Rxn #40	AnalytiCon Plate #9	H11: FOC	-	0.507	0.0629	0.483	-5.7
Rxn #40	AnalytiCon Plate #9	A12: NFC	-	0.073	0.0629	0.483	97.6
Rxn #40	AnalytiCon Plate #9	H12: FOC	-	0.521	0.0629	0.483	-9.0
Rxn #41	AnalytiCon Plate #10	A1: NFC	-	0.075	0.0787	0.601	100.7
Rxn #41	AnalytiCon Plate #10	B1	50	0.572	0.0787	0.601	5.6
Rxn #41	AnalytiCon Plate #10	C1	50	0.487	0.0787	0.601	21.8
Rxn #41	AnalytiCon Plate #10	D1	50	0.574	0.0787	0.601	5.2

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #41	AnalytiCon Plate #10	E1	50	0.525	0.0787	0.601	14.6
Rxn #41	AnalytiCon Plate #10	F1	50	0.523	0.0787	0.601	14.9
Rxn #41	AnalytiCon Plate #10	G1	50	0.552	0.0787	0.601	9.4
Rxn #41	AnalytiCon Plate #10	H1: FOC	-	0.571	0.0787	0.601	5.7
Rxn #41	AnalytiCon Plate #10	A2: NFC	-	0.081	0.0787	0.601	99.6
Rxn #41	AnalytiCon Plate #10	B2	50	0.603	0.0787	0.601	-0.4
Rxn #41	AnalytiCon Plate #10	C2	50	0.596	0.0787	0.601	1.0
Rxn #41	AnalytiCon Plate #10	D2	50	0.595	0.0787	0.601	1.1
Rxn #41	AnalytiCon Plate #10	E2	50	0.587	0.0787	0.601	2.7
Rxn #41	AnalytiCon Plate #10	F2	50	0.586	0.0787	0.601	2.9
Rxn #41	AnalytiCon Plate #10	G2	50	0.565	0.0787	0.601	6.9
Rxn #41	AnalytiCon Plate #10	H2: FOC	-	0.600	0.0787	0.601	0.2
Rxn #41	AnalytiCon Plate #10	A3: NFC	-	0.082	0.0787	0.601	99.4
Rxn #41	AnalytiCon Plate #10	B3	50	0.641	0.0787	0.601	-7.7
Rxn #41	AnalytiCon Plate #10	C3	50	0.633	0.0787	0.601	-6.1
Rxn #41	AnalytiCon Plate #10	D3	50	0.585	0.0787	0.601	3.1
Rxn #41	AnalytiCon Plate #10	E3	50	0.560	0.0787	0.601	7.8
Rxn #41	AnalytiCon Plate #10	F3	50	0.568	0.0787	0.601	6.3
Rxn #41	AnalytiCon Plate #10	G3	50	0.567	0.0787	0.601	6.5
Rxn #41	AnalytiCon Plate #10	H3: FOC	-	0.602	0.0787	0.601	-0.2
Rxn #41	AnalytiCon Plate #10	A4: NFC	-	0.083	0.0787	0.601	99.2
Rxn #41	AnalytiCon Plate #10	B4	50	0.600	0.0787	0.601	0.2
Rxn #41	AnalytiCon Plate #10	C4	50	0.611	0.0787	0.601	-1.9
Rxn #41	AnalytiCon Plate #10	D4	50	0.592	0.0787	0.601	1.7
Rxn #41	AnalytiCon Plate #10	E4	50	0.565	0.0787	0.601	6.9
Rxn #41	AnalytiCon Plate #10	F4	50	0.452	0.0787	0.601	28.5
Rxn #41	AnalytiCon Plate #10	G4	50	0.537	0.0787	0.601	12.3
Rxn #41	AnalytiCon Plate #10	H4: FOC	-	0.603	0.0787	0.601	-0.4
Rxn #41	AnalytiCon Plate #10	A5: NFC	-	0.077	0.0787	0.601	100.3
Rxn #41	AnalytiCon Plate #10	B5: NFC	-	0.076	0.0787	0.601	100.5
Rxn #41	AnalytiCon Plate #10	C5: NFC	-	0.072	0.0787	0.601	101.3
Rxn #41	AnalytiCon Plate #10	D5: NFC	-	0.072	0.0787	0.601	101.3
Rxn #41	AnalytiCon Plate #10	E5: FOC	-	0.592	0.0787	0.601	1.7
Rxn #41	AnalytiCon Plate #10	F5: FOC	-	0.605	0.0787	0.601	-0.8
Rxn #41	AnalytiCon Plate #10	G5: FOC	-	0.596	0.0787	0.601	1.0
Rxn #41	AnalytiCon Plate #10	H5: FOC	-	0.614	0.0787	0.601	-2.5
Rxn #41	AnalytiCon Plate #10	A6: NFC	-	0.081	0.0787	0.601	99.6
Rxn #41	AnalytiCon Plate #10	B6	50	0.584	0.0787	0.601	3.3
Rxn #41	AnalytiCon Plate #10	C6	50	0.595	0.0787	0.601	1.1
Rxn #41	AnalytiCon Plate #10	D6	50	0.626	0.0787	0.601	-4.8
Rxn #41	AnalytiCon Plate #10	E6	50	0.560	0.0787	0.601	7.8
Rxn #41	AnalytiCon Plate #10	F6	50	0.594	0.0787	0.601	1.3
Rxn #41	AnalytiCon Plate #10	G6	50	0.586	0.0787	0.601	2.9
Rxn #41	AnalytiCon Plate #10	H6: FOC	-	0.614	0.0787	0.601	-2.5
Rxn #41	AnalytiCon Plate #10	A7: NFC	-	0.081	0.0787	0.601	99.6
Rxn #41	AnalytiCon Plate #10	B7	50	0.605	0.0787	0.601	-0.8
Rxn #41	AnalytiCon Plate #10	C7	50	0.612	0.0787	0.601	-2.1
Rxn #41	AnalytiCon Plate #10	D7	50	0.512	0.0787	0.601	17.0
Rxn #41	AnalytiCon Plate #10	E7	50	0.550	0.0787	0.601	9.8
Rxn #41	AnalytiCon Plate #10	F7	50	0.576	0.0787	0.601	4.8
Rxn #41	AnalytiCon Plate #10	G7	50	0.599	0.0787	0.601	0.4
Rxn #41	AnalytiCon Plate #10	H7: FOC	-	0.609	0.0787	0.601	-1.5
Rxn #41	AnalytiCon Plate #10	A8: NFC	-	0.075	0.0787	0.601	100.7
Rxn #41	AnalytiCon Plate #10	B8	50	0.534	0.0787	0.601	12.8
Rxn #41	AnalytiCon Plate #10	C8	50	0.539	0.0787	0.601	11.9
Rxn #41	AnalytiCon Plate #10	D8	50	0.583	0.0787	0.601	3.4
Rxn #41	AnalytiCon Plate #10	E8	50	0.583	0.0787	0.601	3.4
Rxn #41	AnalytiCon Plate #10	F8	50	0.597	0.0787	0.601	0.8
Rxn #41	AnalytiCon Plate #10	G8	50	0.594	0.0787	0.601	1.3
Rxn #41	AnalytiCon Plate #10	H8: FOC	-	0.613	0.0787	0.601	-2.3
Rxn #41	AnalytiCon Plate #10	A9: NFC	-	0.078	0.0787	0.601	100.1
Rxn #41	AnalytiCon Plate #10	B9	50	0.572	0.0787	0.601	5.6
Rxn #41	AnalytiCon Plate #10	C9	50	0.461	0.0787	0.601	26.8
Rxn #41	AnalytiCon Plate #10	D9	50	0.572	0.0787	0.601	5.6
Rxn #41	AnalytiCon Plate #10	E9	50	0.583	0.0787	0.601	3.4
Rxn #41	AnalytiCon Plate #10	F9	50	0.576	0.0787	0.601	4.8
Rxn #41	AnalytiCon Plate #10	G9	50	0.578	0.0787	0.601	4.4
Rxn #41	AnalytiCon Plate #10	H9: FOC	-	0.603	0.0787	0.601	-0.4
Rxn #41	AnalytiCon Plate #10	A10: NFC	-	0.080	0.0787	0.601	99.8
Rxn #41	AnalytiCon Plate #10	B10	50	0.567	0.0787	0.601	6.5
Rxn #41	AnalytiCon Plate #10	C10	50	0.519	0.0787	0.601	15.7
Rxn #41	AnalytiCon Plate #10	D10	50	0.579	0.0787	0.601	4.2
Rxn #41	AnalytiCon Plate #10	E10	50	0.570	0.0787	0.601	5.9
Rxn #41	AnalytiCon Plate #10	F10	50	0.584	0.0787	0.601	3.3

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #41	AnalytiCon Plate #10	G10	50	0.608	0.0787	0.601	-1.3
Rxn #41	AnalytiCon Plate #10	H10: FOC	-	0.607	0.0787	0.601	-1.1
Rxn #41	AnalytiCon Plate #10	A11: NFC	-	0.079	0.0787	0.601	99.9
Rxn #41	AnalytiCon Plate #10	B11	50	0.370	0.0787	0.601	44.2
Rxn #41	AnalytiCon Plate #10	C11	50	0.608	0.0787	0.601	-1.3
Rxn #41	AnalytiCon Plate #10	D11	50	0.588	0.0787	0.601	2.5
Rxn #41	AnalytiCon Plate #10	E11	50	0.595	0.0787	0.601	1.1
Rxn #41	AnalytiCon Plate #10	F11	50	0.583	0.0787	0.601	3.4
Rxn #41	AnalytiCon Plate #10	G11	50	0.533	0.0787	0.601	13.0
Rxn #41	AnalytiCon Plate #10	H11: FOC	-	0.629	0.0787	0.601	-5.4
Rxn #41	AnalytiCon Plate #10	A12: NFC	-	0.089	0.0787	0.601	98.0
Rxn #41	AnalytiCon Plate #10	H12: FOC	-	0.656	0.0787	0.601	-10.5
Rxn #46	AnalytiCon Plate #11	A1: NFC	-	0.064	0.0638	0.625	100.0
Rxn #46	AnalytiCon Plate #11	B1	50	0.590	0.0638	0.625	6.2
Rxn #46	AnalytiCon Plate #11	C1	50	0.501	0.0638	0.625	22.1
Rxn #46	AnalytiCon Plate #11	D1	50	0.583	0.0638	0.625	7.5
Rxn #46	AnalytiCon Plate #11	E1	50	0.568	0.0638	0.625	10.2
Rxn #46	AnalytiCon Plate #11	F1	50	0.579	0.0638	0.625	8.2
Rxn #46	AnalytiCon Plate #11	G1	50	0.561	0.0638	0.625	11.4
Rxn #46	AnalytiCon Plate #11	H1: FOC	-	0.589	0.0638	0.625	6.4
Rxn #46	AnalytiCon Plate #11	A2: NFC	-	0.067	0.0638	0.625	99.4
Rxn #46	AnalytiCon Plate #11	B2	50	0.568	0.0638	0.625	10.2
Rxn #46	AnalytiCon Plate #11	C2	50	0.641	0.0638	0.625	-2.9
Rxn #46	AnalytiCon Plate #11	D2	50	0.619	0.0638	0.625	1.1
Rxn #46	AnalytiCon Plate #11	E2	50	0.632	0.0638	0.625	-1.2
Rxn #46	AnalytiCon Plate #11	F2	50	0.545	0.0638	0.625	14.3
Rxn #46	AnalytiCon Plate #11	G2	50	0.593	0.0638	0.625	5.7
Rxn #46	AnalytiCon Plate #11	H2: FOC	-	0.620	0.0638	0.625	0.9
Rxn #46	AnalytiCon Plate #11	A3: NFC	-	0.070	0.0638	0.625	98.9
Rxn #46	AnalytiCon Plate #11	B3	50	0.614	0.0638	0.625	2.0
Rxn #46	AnalytiCon Plate #11	C3	50	0.612	0.0638	0.625	2.3
Rxn #46	AnalytiCon Plate #11	D3	50	0.638	0.0638	0.625	-2.3
Rxn #46	AnalytiCon Plate #11	E3	50	0.638	0.0638	0.625	-2.3
Rxn #46	AnalytiCon Plate #11	F3	50	0.602	0.0638	0.625	4.1
Rxn #46	AnalytiCon Plate #11	G3	50	0.605	0.0638	0.625	3.6
Rxn #46	AnalytiCon Plate #11	H3: FOC	-	0.617	0.0638	0.625	1.4
Rxn #46	AnalytiCon Plate #11	A4: NFC	-	0.056	0.0638	0.625	101.4
Rxn #46	AnalytiCon Plate #11	B4	50	0.655	0.0638	0.625	-5.3
Rxn #46	AnalytiCon Plate #11	C4	50	0.610	0.0638	0.625	2.7
Rxn #46	AnalytiCon Plate #11	D4	50	0.637	0.0638	0.625	-2.1
Rxn #46	AnalytiCon Plate #11	E4	50	0.483	0.0638	0.625	25.3
Rxn #46	AnalytiCon Plate #11	F4	50	0.472	0.0638	0.625	27.3
Rxn #46	AnalytiCon Plate #11	G4	50	0.543	0.0638	0.625	14.6
Rxn #46	AnalytiCon Plate #11	H4: FOC	-	0.623	0.0638	0.625	0.4
Rxn #46	AnalytiCon Plate #11	A5: NFC	-	0.075	0.0638	0.625	98.0
Rxn #46	AnalytiCon Plate #11	B5: NFC	-	0.065	0.0638	0.625	99.8
Rxn #46	AnalytiCon Plate #11	C5: NFC	-	0.079	0.0638	0.625	97.3
Rxn #46	AnalytiCon Plate #11	D5: NFC	-	0.062	0.0638	0.625	100.3
Rxn #46	AnalytiCon Plate #11	E5: FOC	-	0.633	0.0638	0.625	-1.4
Rxn #46	AnalytiCon Plate #11	F5: FOC	-	0.627	0.0638	0.625	-0.4
Rxn #46	AnalytiCon Plate #11	G5: FOC	-	0.626	0.0638	0.625	-0.2
Rxn #46	AnalytiCon Plate #11	H5: FOC	-	0.612	0.0638	0.625	2.3
Rxn #46	AnalytiCon Plate #11	A6: NFC	-	0.055	0.0638	0.625	101.6
Rxn #46	AnalytiCon Plate #11	B6	50	0.620	0.0638	0.625	0.9
Rxn #46	AnalytiCon Plate #11	C6	50	0.627	0.0638	0.625	-0.4
Rxn #46	AnalytiCon Plate #11	D6	50	0.652	0.0638	0.625	-4.8
Rxn #46	AnalytiCon Plate #11	E6	50	0.652	0.0638	0.625	-4.8
Rxn #46	AnalytiCon Plate #11	F6	50	0.614	0.0638	0.625	2.0
Rxn #46	AnalytiCon Plate #11	G6	50	0.599	0.0638	0.625	4.6
Rxn #46	AnalytiCon Plate #11	H6: FOC	-	0.647	0.0638	0.625	-3.9
Rxn #46	AnalytiCon Plate #11	A7: NFC	-	0.065	0.0638	0.625	99.8
Rxn #46	AnalytiCon Plate #11	B7	50	0.615	0.0638	0.625	1.8
Rxn #46	AnalytiCon Plate #11	C7	50	0.666	0.0638	0.625	-7.3
Rxn #46	AnalytiCon Plate #11	D7	50	0.607	0.0638	0.625	3.2
Rxn #46	AnalytiCon Plate #11	E7	50	0.631	0.0638	0.625	-1.1
Rxn #46	AnalytiCon Plate #11	F7	50	0.602	0.0638	0.625	4.1
Rxn #46	AnalytiCon Plate #11	G7	50	0.626	0.0638	0.625	-0.2
Rxn #46	AnalytiCon Plate #11	H7: FOC	-	0.658	0.0638	0.625	-5.9
Rxn #46	AnalytiCon Plate #11	A8: NFC	-	0.060	0.0638	0.625	100.7
Rxn #46	AnalytiCon Plate #11	B8	50	0.466	0.0638	0.625	28.3
Rxn #46	AnalytiCon Plate #11	C8	50	0.576	0.0638	0.625	8.7
Rxn #46	AnalytiCon Plate #11	D8	50	0.642	0.0638	0.625	-3.0
Rxn #46	AnalytiCon Plate #11	E8	50	0.613	0.0638	0.625	2.1
Rxn #46	AnalytiCon Plate #11	F8	50	0.499	0.0638	0.625	22.5

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #46	AnalytiCon Plate #11	G8	50	0.596	0.0638	0.625	5.2
Rxn #46	AnalytiCon Plate #11	H8: FOC	-	0.658	0.0638	0.625	-5.9
Rxn #46	AnalytiCon Plate #11	A9: NFC	-	0.068	0.0638	0.625	99.3
Rxn #46	AnalytiCon Plate #11	B9	50	0.629	0.0638	0.625	-0.7
Rxn #46	AnalytiCon Plate #11	C9	50	0.614	0.0638	0.625	2.0
Rxn #46	AnalytiCon Plate #11	D9	50	0.515	0.0638	0.625	19.6
Rxn #46	AnalytiCon Plate #11	E9	50	0.609	0.0638	0.625	2.9
Rxn #46	AnalytiCon Plate #11	F9	50	0.508	0.0638	0.625	20.8
Rxn #46	AnalytiCon Plate #11	G9	50	0.520	0.0638	0.625	18.7
Rxn #46	AnalytiCon Plate #11	H9: FOC	-	0.634	0.0638	0.625	-1.6
Rxn #46	AnalytiCon Plate #11	A10: NFC	-	0.052	0.0638	0.625	102.1
Rxn #46	AnalytiCon Plate #11	B10	50	0.604	0.0638	0.625	3.7
Rxn #46	AnalytiCon Plate #11	C10	50	0.594	0.0638	0.625	5.5
Rxn #46	AnalytiCon Plate #11	D10	50	0.622	0.0638	0.625	0.5
Rxn #46	AnalytiCon Plate #11	E10	50	0.614	0.0638	0.625	2.0
Rxn #46	AnalytiCon Plate #11	F10	50	0.611	0.0638	0.625	2.5
Rxn #46	AnalytiCon Plate #11	G10	50	0.602	0.0638	0.625	4.1
Rxn #46	AnalytiCon Plate #11	H10: FOC	-	0.624	0.0638	0.625	0.2
Rxn #46	AnalytiCon Plate #11	A11: NFC	-	0.072	0.0638	0.625	98.5
Rxn #46	AnalytiCon Plate #11	B11	50	0.622	0.0638	0.625	0.5
Rxn #46	AnalytiCon Plate #11	C11	50	0.582	0.0638	0.625	7.7
Rxn #46	AnalytiCon Plate #11	D11	50	0.581	0.0638	0.625	7.8
Rxn #46	AnalytiCon Plate #11	E11	50	0.580	0.0638	0.625	8.0
Rxn #46	AnalytiCon Plate #11	F11	50	0.529	0.0638	0.625	17.1
Rxn #46	AnalytiCon Plate #11	G11	50	0.581	0.0638	0.625	7.8
Rxn #46	AnalytiCon Plate #11	H11: FOC	-	0.637	0.0638	0.625	-2.1
Rxn #46	AnalytiCon Plate #11	A12: NFC	-	0.047	0.0638	0.625	103.0
Rxn #46	AnalytiCon Plate #11	H12: FOC	-	0.577	0.0638	0.625	8.6
Rxn #47	AnalytiCon Plate #12	A1: NFC	-	0.070	0.0642	0.645	99.0
Rxn #47	AnalytiCon Plate #12	B1	50	0.620	0.0642	0.645	4.3
Rxn #47	AnalytiCon Plate #12	C1	50	0.604	0.0642	0.645	7.1
Rxn #47	AnalytiCon Plate #12	D1	50	0.607	0.0642	0.645	6.5
Rxn #47	AnalytiCon Plate #12	E1	50	0.593	0.0642	0.645	9.0
Rxn #47	AnalytiCon Plate #12	F1	50	0.568	0.0642	0.645	13.3
Rxn #47	AnalytiCon Plate #12	G1	50	0.587	0.0642	0.645	10.0
Rxn #47	AnalytiCon Plate #12	H1: FOC	-	0.581	0.0642	0.645	11.0
Rxn #47	AnalytiCon Plate #12	A2: NFC	-	0.081	0.0642	0.645	97.1
Rxn #47	AnalytiCon Plate #12	B2	50	0.630	0.0642	0.645	2.6
Rxn #47	AnalytiCon Plate #12	C2	50	0.615	0.0642	0.645	5.2
Rxn #47	AnalytiCon Plate #12	D2	50	0.653	0.0642	0.645	-1.4
Rxn #47	AnalytiCon Plate #12	E2	50	0.636	0.0642	0.645	1.5
Rxn #47	AnalytiCon Plate #12	F2	50	0.522	0.0642	0.645	21.2
Rxn #47	AnalytiCon Plate #12	G2	50	0.637	0.0642	0.645	1.4
Rxn #47	AnalytiCon Plate #12	H2: FOC	-	0.632	0.0642	0.645	2.2
Rxn #47	AnalytiCon Plate #12	A3: NFC	-	0.079	0.0642	0.645	97.5
Rxn #47	AnalytiCon Plate #12	B3	50	0.651	0.0642	0.645	-1.0
Rxn #47	AnalytiCon Plate #12	C3	50	0.629	0.0642	0.645	2.8
Rxn #47	AnalytiCon Plate #12	D3	50	0.566	0.0642	0.645	13.6
Rxn #47	AnalytiCon Plate #12	E3	50	0.639	0.0642	0.645	1.0
Rxn #47	AnalytiCon Plate #12	F3	50	0.637	0.0642	0.645	1.4
Rxn #47	AnalytiCon Plate #12	G3	50	0.627	0.0642	0.645	3.1
Rxn #47	AnalytiCon Plate #12	H3: FOC	-	0.660	0.0642	0.645	-2.6
Rxn #47	AnalytiCon Plate #12	A4: NFC	-	0.060	0.0642	0.645	100.7
Rxn #47	AnalytiCon Plate #12	B4	50	0.631	0.0642	0.645	2.4
Rxn #47	AnalytiCon Plate #12	C4	50	0.653	0.0642	0.645	-1.4
Rxn #47	AnalytiCon Plate #12	D4	50	0.626	0.0642	0.645	3.3
Rxn #47	AnalytiCon Plate #12	E4	50	0.626	0.0642	0.645	3.3
Rxn #47	AnalytiCon Plate #12	F4	50	0.645	0.0642	0.645	0.0
Rxn #47	AnalytiCon Plate #12	G4	50	0.659	0.0642	0.645	-2.4
Rxn #47	AnalytiCon Plate #12	H4: FOC	-	0.668	0.0642	0.645	-4.0
Rxn #47	AnalytiCon Plate #12	A5: NFC	-	0.080	0.0642	0.645	97.3
Rxn #47	AnalytiCon Plate #12	B5: NFC	-	0.061	0.0642	0.645	100.6
Rxn #47	AnalytiCon Plate #12	C5: NFC	-	0.059	0.0642	0.645	100.9
Rxn #47	AnalytiCon Plate #12	D5: NFC	-	0.065	0.0642	0.645	99.9
Rxn #47	AnalytiCon Plate #12	E5: FOC	-	0.655	0.0642	0.645	-1.7
Rxn #47	AnalytiCon Plate #12	F5: FOC	-	0.648	0.0642	0.645	-0.5
Rxn #47	AnalytiCon Plate #12	G5: FOC	-	0.665	0.0642	0.645	-3.4
Rxn #47	AnalytiCon Plate #12	H5: FOC	-	0.662	0.0642	0.645	-2.9
Rxn #47	AnalytiCon Plate #12	A6: NFC	-	0.075	0.0642	0.645	98.1
Rxn #47	AnalytiCon Plate #12	B6	50	0.654	0.0642	0.645	-1.5
Rxn #47	AnalytiCon Plate #12	C6	50	0.655	0.0642	0.645	-1.7
Rxn #47	AnalytiCon Plate #12	D6	50	0.616	0.0642	0.645	5.0
Rxn #47	AnalytiCon Plate #12	E6	50	0.557	0.0642	0.645	15.2
Rxn #47	AnalytiCon Plate #12	F6	50	0.631	0.0642	0.645	2.4

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #47	AnalytiCon Plate #12	G6	50	0.657	0.0642	0.645	-2.1
Rxn #47	AnalytiCon Plate #12	H6: FOC	-	0.630	0.0642	0.645	2.6
Rxn #47	AnalytiCon Plate #12	A7: NFC	-	0.062	0.0642	0.645	100.4
Rxn #47	AnalytiCon Plate #12	B7	50	0.617	0.0642	0.645	4.8
Rxn #47	AnalytiCon Plate #12	C7	50	0.603	0.0642	0.645	7.2
Rxn #47	AnalytiCon Plate #12	D7	50	0.630	0.0642	0.645	2.6
Rxn #47	AnalytiCon Plate #12	E7	50	0.660	0.0642	0.645	-2.6
Rxn #47	AnalytiCon Plate #12	F7	50	0.584	0.0642	0.645	10.5
Rxn #47	AnalytiCon Plate #12	G7	50	0.571	0.0642	0.645	12.7
Rxn #47	AnalytiCon Plate #12	H7: FOC	-	0.648	0.0642	0.645	-0.5
Rxn #47	AnalytiCon Plate #12	A8: NFC	-	0.064	0.0642	0.645	100.0
Rxn #47	AnalytiCon Plate #12	B8	50	0.637	0.0642	0.645	1.4
Rxn #47	AnalytiCon Plate #12	C8	50	0.579	0.0642	0.645	11.4
Rxn #47	AnalytiCon Plate #12	D8	50	0.568	0.0642	0.645	13.3
Rxn #47	AnalytiCon Plate #12	E8	50	0.583	0.0642	0.645	10.7
Rxn #47	AnalytiCon Plate #12	F8	50	0.558	0.0642	0.645	15.0
Rxn #47	AnalytiCon Plate #12	G8	50	0.620	0.0642	0.645	4.3
Rxn #47	AnalytiCon Plate #12	H8: FOC	-	0.654	0.0642	0.645	-1.5
Rxn #47	AnalytiCon Plate #12	A9: NFC	-	0.049	0.0642	0.645	102.6
Rxn #47	AnalytiCon Plate #12	B9	50	0.612	0.0642	0.645	5.7
Rxn #47	AnalytiCon Plate #12	C9	50	0.622	0.0642	0.645	4.0
Rxn #47	AnalytiCon Plate #12	D9	50	0.610	0.0642	0.645	6.0
Rxn #47	AnalytiCon Plate #12	E9	50	0.612	0.0642	0.645	5.7
Rxn #47	AnalytiCon Plate #12	F9	50	0.616	0.0642	0.645	5.0
Rxn #47	AnalytiCon Plate #12	G9	50	0.622	0.0642	0.645	4.0
Rxn #47	AnalytiCon Plate #12	H9: FOC	-	0.652	0.0642	0.645	-1.2
Rxn #47	AnalytiCon Plate #12	A10: NFC	-	0.045	0.0642	0.645	103.3
Rxn #47	AnalytiCon Plate #12	B10	50	0.615	0.0642	0.645	5.2
Rxn #47	AnalytiCon Plate #12	C10	50	0.616	0.0642	0.645	5.0
Rxn #47	AnalytiCon Plate #12	D10	50	0.617	0.0642	0.645	4.8
Rxn #47	AnalytiCon Plate #12	E10	50	0.616	0.0642	0.645	5.0
Rxn #47	AnalytiCon Plate #12	F10	50	0.609	0.0642	0.645	6.2
Rxn #47	AnalytiCon Plate #12	G10	50	0.570	0.0642	0.645	12.9
Rxn #47	AnalytiCon Plate #12	H10: FOC	-	0.635	0.0642	0.645	1.7
Rxn #47	AnalytiCon Plate #12	A11: NFC	-	0.053	0.0642	0.645	101.9
Rxn #47	AnalytiCon Plate #12	B11	50	0.586	0.0642	0.645	10.2
Rxn #47	AnalytiCon Plate #12	C11	50	0.609	0.0642	0.645	6.2
Rxn #47	AnalytiCon Plate #12	D11	50	0.596	0.0642	0.645	8.4
Rxn #47	AnalytiCon Plate #12	E11	50	0.613	0.0642	0.645	5.5
Rxn #47	AnalytiCon Plate #12	F11	50	0.596	0.0642	0.645	8.4
Rxn #47	AnalytiCon Plate #12	G11	50	0.596	0.0642	0.645	8.4
Rxn #47	AnalytiCon Plate #12	H11: FOC	-	0.646	0.0642	0.645	-0.2
Rxn #47	AnalytiCon Plate #12	A12: NFC	-	0.060	0.0642	0.645	100.7
Rxn #47	AnalytiCon Plate #12	H12: FOC	-	0.598	0.0642	0.645	8.1
Rxn #48	AnalytiCon Plate #13	A1: NFC	-	0.043	0.0515	0.560	101.7
Rxn #48	AnalytiCon Plate #13	B1	50	0.540	0.0515	0.560	3.9
Rxn #48	AnalytiCon Plate #13	C1	50	0.547	0.0515	0.560	2.6
Rxn #48	AnalytiCon Plate #13	D1	50	0.540	0.0515	0.560	3.9
Rxn #48	AnalytiCon Plate #13	E1	50	0.544	0.0515	0.560	3.1
Rxn #48	AnalytiCon Plate #13	F1	50	0.540	0.0515	0.560	3.9
Rxn #48	AnalytiCon Plate #13	G1	50	0.529	0.0515	0.560	6.1
Rxn #48	AnalytiCon Plate #13	H1: FOC	-	0.537	0.0515	0.560	4.5
Rxn #48	AnalytiCon Plate #13	A2: NFC	-	0.059	0.0515	0.560	98.5
Rxn #48	AnalytiCon Plate #13	B2	50	0.523	0.0515	0.560	7.3
Rxn #48	AnalytiCon Plate #13	C2	50	0.532	0.0515	0.560	5.5
Rxn #48	AnalytiCon Plate #13	D2	50	0.547	0.0515	0.560	2.6
Rxn #48	AnalytiCon Plate #13	E2	50	0.543	0.0515	0.560	3.3
Rxn #48	AnalytiCon Plate #13	F2	50	0.554	0.0515	0.560	1.2
Rxn #48	AnalytiCon Plate #13	G2	50	0.492	0.0515	0.560	13.4
Rxn #48	AnalytiCon Plate #13	H2: FOC	-	0.560	0.0515	0.560	0.0
Rxn #48	AnalytiCon Plate #13	A3: NFC	-	0.059	0.0515	0.560	98.5
Rxn #48	AnalytiCon Plate #13	B3	50	0.498	0.0515	0.560	12.2
Rxn #48	AnalytiCon Plate #13	C3	50	0.540	0.0515	0.560	3.9
Rxn #48	AnalytiCon Plate #13	D3	50	0.543	0.0515	0.560	3.3
Rxn #48	AnalytiCon Plate #13	E3	50	0.461	0.0515	0.560	19.5
Rxn #48	AnalytiCon Plate #13	F3	50	0.544	0.0515	0.560	3.1
Rxn #48	AnalytiCon Plate #13	G3	50	0.545	0.0515	0.560	2.9
Rxn #48	AnalytiCon Plate #13	H3: FOC	-	0.572	0.0515	0.560	-2.4
Rxn #48	AnalytiCon Plate #13	A4: NFC	-	0.056	0.0515	0.560	99.1
Rxn #48	AnalytiCon Plate #13	B4	50	0.558	0.0515	0.560	0.4
Rxn #48	AnalytiCon Plate #13	C4	50	0.543	0.0515	0.560	3.3
Rxn #48	AnalytiCon Plate #13	D4	50	0.548	0.0515	0.560	2.4
Rxn #48	AnalytiCon Plate #13	E4	50	0.538	0.0515	0.560	4.3
Rxn #48	AnalytiCon Plate #13	F4	50	0.559	0.0515	0.560	0.2

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #48	AnalytiCon Plate #13	G4	50	0.496	0.0515	0.560	12.6
Rxn #48	AnalytiCon Plate #13	H4: FOC	-	0.561	0.0515	0.560	-0.2
Rxn #48	AnalytiCon Plate #13	A5: NFC	-	0.050	0.0515	0.560	100.3
Rxn #48	AnalytiCon Plate #13	B5: NFC	-	0.052	0.0515	0.560	99.9
Rxn #48	AnalytiCon Plate #13	C5: NFC	-	0.050	0.0515	0.560	100.3
Rxn #48	AnalytiCon Plate #13	D5: NFC	-	0.058	0.0515	0.560	98.7
Rxn #48	AnalytiCon Plate #13	E5: FOC	-	0.566	0.0515	0.560	-1.2
Rxn #48	AnalytiCon Plate #13	F5: FOC	-	0.559	0.0515	0.560	0.2
Rxn #48	AnalytiCon Plate #13	G5: FOC	-	0.561	0.0515	0.560	-0.2
Rxn #48	AnalytiCon Plate #13	H5: FOC	-	0.564	0.0515	0.560	-0.8
Rxn #48	AnalytiCon Plate #13	A6: NFC	-	0.049	0.0515	0.560	100.5
Rxn #48	AnalytiCon Plate #13	B6	50	0.534	0.0515	0.560	5.1
Rxn #48	AnalytiCon Plate #13	C6	50	0.496	0.0515	0.560	12.6
Rxn #48	AnalytiCon Plate #13	D6	50	0.564	0.0515	0.560	-0.8
Rxn #48	AnalytiCon Plate #13	E6	50	0.559	0.0515	0.560	0.2
Rxn #48	AnalytiCon Plate #13	F6	50	0.562	0.0515	0.560	-0.4
Rxn #48	AnalytiCon Plate #13	G6	50	0.242	0.0515	0.560	62.5
Rxn #48	AnalytiCon Plate #13	H6: FOC	-	0.571	0.0515	0.560	-2.2
Rxn #48	AnalytiCon Plate #13	A7: NFC	-	0.051	0.0515	0.560	100.1
Rxn #48	AnalytiCon Plate #13	B7	50	0.568	0.0515	0.560	-1.6
Rxn #48	AnalytiCon Plate #13	C7	50	0.559	0.0515	0.560	0.2
Rxn #48	AnalytiCon Plate #13	D7	50	0.564	0.0515	0.560	-0.8
Rxn #48	AnalytiCon Plate #13	E7	50	0.565	0.0515	0.560	-1.0
Rxn #48	AnalytiCon Plate #13	F7	50	0.545	0.0515	0.560	2.9
Rxn #48	AnalytiCon Plate #13	G7	50	0.551	0.0515	0.560	1.8
Rxn #48	AnalytiCon Plate #13	H7: FOC	-	0.548	0.0515	0.560	2.4
Rxn #48	AnalytiCon Plate #13	A8: NFC	-	0.053	0.0515	0.560	99.7
Rxn #48	AnalytiCon Plate #13	B8	50	0.554	0.0515	0.560	1.2
Rxn #48	AnalytiCon Plate #13	C8	50	0.588	0.0515	0.560	-5.5
Rxn #48	AnalytiCon Plate #13	D8	50	0.521	0.0515	0.560	7.7
Rxn #48	AnalytiCon Plate #13	E8	50	0.552	0.0515	0.560	1.6
Rxn #48	AnalytiCon Plate #13	F8	50	0.522	0.0515	0.560	7.5
Rxn #48	AnalytiCon Plate #13	G8	50	0.541	0.0515	0.560	3.7
Rxn #48	AnalytiCon Plate #13	H8: FOC	-	0.560	0.0515	0.560	0.0
Rxn #48	AnalytiCon Plate #13	A9: NFC	-	0.047	0.0515	0.560	100.9
Rxn #48	AnalytiCon Plate #13	B9	50	0.554	0.0515	0.560	1.2
Rxn #48	AnalytiCon Plate #13	C9	50	0.567	0.0515	0.560	-1.4
Rxn #48	AnalytiCon Plate #13	D9	50	0.566	0.0515	0.560	-1.2
Rxn #48	AnalytiCon Plate #13	E9	50	0.557	0.0515	0.560	0.6
Rxn #48	AnalytiCon Plate #13	F9	50	0.565	0.0515	0.560	-1.0
Rxn #48	AnalytiCon Plate #13	G9	50	0.588	0.0515	0.560	-5.5
Rxn #48	AnalytiCon Plate #13	H9: FOC	-	0.569	0.0515	0.560	-1.8
Rxn #48	AnalytiCon Plate #13	A10: NFC	-	0.048	0.0515	0.560	100.7
Rxn #48	AnalytiCon Plate #13	B10	50	0.534	0.0515	0.560	5.1
Rxn #48	AnalytiCon Plate #13	C10	50	0.560	0.0515	0.560	0.0
Rxn #48	AnalytiCon Plate #13	D10	50	0.568	0.0515	0.560	-1.6
Rxn #48	AnalytiCon Plate #13	E10	50	0.529	0.0515	0.560	6.1
Rxn #48	AnalytiCon Plate #13	F10	50	0.557	0.0515	0.560	0.6
Rxn #48	AnalytiCon Plate #13	G10	50	0.559	0.0515	0.560	0.2
Rxn #48	AnalytiCon Plate #13	H10: FOC	-	0.574	0.0515	0.560	-2.8
Rxn #48	AnalytiCon Plate #13	A11: NFC	-	0.047	0.0515	0.560	100.9
Rxn #48	AnalytiCon Plate #13	B11	50	0.567	0.0515	0.560	-1.4
Rxn #48	AnalytiCon Plate #13	C11	50	0.556	0.0515	0.560	0.8
Rxn #48	AnalytiCon Plate #13	D11	50	0.575	0.0515	0.560	-2.9
Rxn #48	AnalytiCon Plate #13	E11	50	0.587	0.0515	0.560	-5.3
Rxn #48	AnalytiCon Plate #13	F11	50	0.591	0.0515	0.560	-6.1
Rxn #48	AnalytiCon Plate #13	G11	50	0.569	0.0515	0.560	-1.8
Rxn #48	AnalytiCon Plate #13	H11: FOC	-	0.594	0.0515	0.560	-6.7
Rxn #48	AnalytiCon Plate #13	A12: NFC	-	0.051	0.0515	0.560	100.1
Rxn #48	AnalytiCon Plate #13	H12: FOC	-	0.614	0.0515	0.560	-10.6
Rxn #49	AnalytiCon Plate #14	A1: NFC	-	0.046	0.0498	0.568	100.7
Rxn #49	AnalytiCon Plate #14	B1	50	0.524	0.0498	0.568	8.5
Rxn #49	AnalytiCon Plate #14	C1	50	0.488	0.0498	0.568	15.4
Rxn #49	AnalytiCon Plate #14	D1	50	0.495	0.0498	0.568	14.1
Rxn #49	AnalytiCon Plate #14	E1	50	0.552	0.0498	0.568	3.1
Rxn #49	AnalytiCon Plate #14	F1	50	0.555	0.0498	0.568	2.5
Rxn #49	AnalytiCon Plate #14	G1	50	0.475	0.0498	0.568	17.9
Rxn #49	AnalytiCon Plate #14	H1: FOC	-	0.518	0.0498	0.568	9.6
Rxn #49	AnalytiCon Plate #14	A2: NFC	-	0.044	0.0498	0.568	101.1
Rxn #49	AnalytiCon Plate #14	B2	50	0.516	0.0498	0.568	10.0
Rxn #49	AnalytiCon Plate #14	C2	50	0.532	0.0498	0.568	6.9
Rxn #49	AnalytiCon Plate #14	D2	50	0.548	0.0498	0.568	3.9
Rxn #49	AnalytiCon Plate #14	E2	50	0.572	0.0498	0.568	-0.8
Rxn #49	AnalytiCon Plate #14	F2	50	0.530	0.0498	0.568	7.3



**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #49	AnalytiCon Plate #14	G2	50	0.555	0.0498	0.568	2.5
Rxn #49	AnalytiCon Plate #14	H2: FOC	-	0.562	0.0498	0.568	1.2
Rxn #49	AnalytiCon Plate #14	A3: NFC	-	0.050	0.0498	0.568	100.0
Rxn #49	AnalytiCon Plate #14	B3	50	0.544	0.0498	0.568	4.6
Rxn #49	AnalytiCon Plate #14	C3	50	0.498	0.0498	0.568	13.5
Rxn #49	AnalytiCon Plate #14	D3	50	0.567	0.0498	0.568	0.2
Rxn #49	AnalytiCon Plate #14	E3	50	0.478	0.0498	0.568	17.4
Rxn #49	AnalytiCon Plate #14	F3	50	0.566	0.0498	0.568	0.4
Rxn #49	AnalytiCon Plate #14	G3	50	0.553	0.0498	0.568	2.9
Rxn #49	AnalytiCon Plate #14	H3: FOC	-	0.551	0.0498	0.568	3.3
Rxn #49	AnalytiCon Plate #14	A4: NFC	-	0.039	0.0498	0.568	102.1
Rxn #49	AnalytiCon Plate #14	B4	50	0.484	0.0498	0.568	16.2
Rxn #49	AnalytiCon Plate #14	C4	50	0.533	0.0498	0.568	6.8
Rxn #49	AnalytiCon Plate #14	D4	50	0.571	0.0498	0.568	-0.6
Rxn #49	AnalytiCon Plate #14	E4	50	0.565	0.0498	0.568	0.6
Rxn #49	AnalytiCon Plate #14	F4	50	0.505	0.0498	0.568	12.2
Rxn #49	AnalytiCon Plate #14	G4	50	0.555	0.0498	0.568	2.5
Rxn #49	AnalytiCon Plate #14	H4: FOC	-	0.591	0.0498	0.568	-4.4
Rxn #49	AnalytiCon Plate #14	A5: NFC	-	0.046	0.0498	0.568	100.7
Rxn #49	AnalytiCon Plate #14	B5: NFC	-	0.050	0.0498	0.568	100.0
Rxn #49	AnalytiCon Plate #14	C5: NFC	-	0.050	0.0498	0.568	100.0
Rxn #49	AnalytiCon Plate #14	D5: NFC	-	0.052	0.0498	0.568	99.6
Rxn #49	AnalytiCon Plate #14	E5: FOC	-	0.576	0.0498	0.568	-1.5
Rxn #49	AnalytiCon Plate #14	F5: FOC	-	0.571	0.0498	0.568	-0.6
Rxn #49	AnalytiCon Plate #14	G5: FOC	-	0.581	0.0498	0.568	-2.5
Rxn #49	AnalytiCon Plate #14	H5: FOC	-	0.585	0.0498	0.568	-3.3
Rxn #49	AnalytiCon Plate #14	A6: NFC	-	0.042	0.0498	0.568	101.5
Rxn #49	AnalytiCon Plate #14	B6	50	0.490	0.0498	0.568	15.1
Rxn #49	AnalytiCon Plate #14	C6	50	0.378	0.0498	0.568	36.7
Rxn #49	AnalytiCon Plate #14	D6	50	0.572	0.0498	0.568	-0.8
Rxn #49	AnalytiCon Plate #14	E6	50	0.504	0.0498	0.568	12.4
Rxn #49	AnalytiCon Plate #14	F6	50	0.576	0.0498	0.568	-1.5
Rxn #49	AnalytiCon Plate #14	G6	50	0.555	0.0498	0.568	2.5
Rxn #49	AnalytiCon Plate #14	H6: FOC	-	0.560	0.0498	0.568	1.5
Rxn #49	AnalytiCon Plate #14	A7: NFC	-	0.060	0.0498	0.568	98.0
Rxn #49	AnalytiCon Plate #14	B7	50	0.555	0.0498	0.568	2.5
Rxn #49	AnalytiCon Plate #14	C7	50	0.481	0.0498	0.568	16.8
Rxn #49	AnalytiCon Plate #14	D7	50	0.550	0.0498	0.568	3.5
Rxn #49	AnalytiCon Plate #14	E7	50	0.545	0.0498	0.568	4.4
Rxn #49	AnalytiCon Plate #14	F7	50	0.559	0.0498	0.568	1.7
Rxn #49	AnalytiCon Plate #14	G7	50	0.571	0.0498	0.568	-0.6
Rxn #49	AnalytiCon Plate #14	H7: FOC	-	0.589	0.0498	0.568	-4.1
Rxn #49	AnalytiCon Plate #14	A8: NFC	-	0.050	0.0498	0.568	100.0
Rxn #49	AnalytiCon Plate #14	B8	50	0.434	0.0498	0.568	25.9
Rxn #49	AnalytiCon Plate #14	C8	50	0.459	0.0498	0.568	21.0
Rxn #49	AnalytiCon Plate #14	D8	50	0.547	0.0498	0.568	4.1
Rxn #49	AnalytiCon Plate #14	E8	50	0.549	0.0498	0.568	3.7
Rxn #49	AnalytiCon Plate #14	F8	50	0.566	0.0498	0.568	0.4
Rxn #49	AnalytiCon Plate #14	G8	50	0.547	0.0498	0.568	4.1
Rxn #49	AnalytiCon Plate #14	H8: FOC	-	0.553	0.0498	0.568	2.9
Rxn #49	AnalytiCon Plate #14	A9: NFC	-	0.054	0.0498	0.568	99.2
Rxn #49	AnalytiCon Plate #14	B9	50	0.538	0.0498	0.568	5.8
Rxn #49	AnalytiCon Plate #14	C9	50	0.550	0.0498	0.568	3.5
Rxn #49	AnalytiCon Plate #14	D9	50	0.540	0.0498	0.568	5.4
Rxn #49	AnalytiCon Plate #14	E9	50	0.532	0.0498	0.568	6.9
Rxn #49	AnalytiCon Plate #14	F9	50	0.562	0.0498	0.568	1.2
Rxn #49	AnalytiCon Plate #14	G9	50	0.514	0.0498	0.568	10.4
Rxn #49	AnalytiCon Plate #14	H9: FOC	-	0.541	0.0498	0.568	5.2
Rxn #49	AnalytiCon Plate #14	A10: NFC	-	0.056	0.0498	0.568	98.8
Rxn #49	AnalytiCon Plate #14	B10	50	0.551	0.0498	0.568	3.3
Rxn #49	AnalytiCon Plate #14	C10	50	0.510	0.0498	0.568	11.2
Rxn #49	AnalytiCon Plate #14	D10	50	0.551	0.0498	0.568	3.3
Rxn #49	AnalytiCon Plate #14	E10	50	0.451	0.0498	0.568	22.6
Rxn #49	AnalytiCon Plate #14	F10	50	0.551	0.0498	0.568	3.3
Rxn #49	AnalytiCon Plate #14	G10	50	0.556	0.0498	0.568	2.3
Rxn #49	AnalytiCon Plate #14	H10: FOC	-	0.527	0.0498	0.568	7.9
Rxn #49	AnalytiCon Plate #14	A11: NFC	-	0.053	0.0498	0.568	99.4
Rxn #49	AnalytiCon Plate #14	B11	50	0.547	0.0498	0.568	4.1
Rxn #49	AnalytiCon Plate #14	C11	50	0.542	0.0498	0.568	5.0
Rxn #49	AnalytiCon Plate #14	D11	50	0.568	0.0498	0.568	0.0
Rxn #49	AnalytiCon Plate #14	E11	50	0.548	0.0498	0.568	3.9
Rxn #49	AnalytiCon Plate #14	F11	50	0.482	0.0498	0.568	16.6
Rxn #49	AnalytiCon Plate #14	G11	50	0.513	0.0498	0.568	10.6
Rxn #49	AnalytiCon Plate #14	H11: FOC	-	0.536	0.0498	0.568	6.2

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #49	AnalytiCon Plate #14	A12: NFC	-	0.055	0.0498	0.568	99.0
Rxn #49	AnalytiCon Plate #14	H12: FOC	-	0.535	0.0498	0.568	6.4
Rxn #50	AnalytiCon Plate #15	A1: NFC	-	0.079	0.0741	0.628	99.1
Rxn #50	AnalytiCon Plate #15	B1	50	0.540	0.0741	0.628	15.9
Rxn #50	AnalytiCon Plate #15	C1	50	0.571	0.0741	0.628	10.3
Rxn #50	AnalytiCon Plate #15	D1	50	0.543	0.0741	0.628	15.3
Rxn #50	AnalytiCon Plate #15	E1	50	0.589	0.0741	0.628	7.0
Rxn #50	AnalytiCon Plate #15	F1	50	0.581	0.0741	0.628	8.5
Rxn #50	AnalytiCon Plate #15	G1	50	0.595	0.0741	0.628	6.0
Rxn #50	AnalytiCon Plate #15	H1: FOC	-	0.563	0.0741	0.628	11.7
Rxn #50	AnalytiCon Plate #15	A2: NFC	-	0.078	0.0741	0.628	99.3
Rxn #50	AnalytiCon Plate #15	B2	50	0.626	0.0741	0.628	0.4
Rxn #50	AnalytiCon Plate #15	C2	50	0.604	0.0741	0.628	4.3
Rxn #50	AnalytiCon Plate #15	D2	50	0.592	0.0741	0.628	6.5
Rxn #50	AnalytiCon Plate #15	E2	50	0.600	0.0741	0.628	5.1
Rxn #50	AnalytiCon Plate #15	F2	50	0.540	0.0741	0.628	15.9
Rxn #50	AnalytiCon Plate #15	G2	50	0.599	0.0741	0.628	5.2
Rxn #50	AnalytiCon Plate #15	H2: FOC	-	0.620	0.0741	0.628	1.4
Rxn #50	AnalytiCon Plate #15	A3: NFC	-	0.093	0.0741	0.628	96.6
Rxn #50	AnalytiCon Plate #15	B3	50	0.594	0.0741	0.628	6.1
Rxn #50	AnalytiCon Plate #15	C3	50	0.584	0.0741	0.628	7.9
Rxn #50	AnalytiCon Plate #15	D3	50	0.609	0.0741	0.628	3.4
Rxn #50	AnalytiCon Plate #15	E3	50	0.570	0.0741	0.628	10.5
Rxn #50	AnalytiCon Plate #15	F3	50	0.569	0.0741	0.628	10.7
Rxn #50	AnalytiCon Plate #15	G3	50	0.619	0.0741	0.628	1.6
Rxn #50	AnalytiCon Plate #15	H3: FOC	-	0.640	0.0741	0.628	-2.2
Rxn #50	AnalytiCon Plate #15	A4: NFC	-	0.082	0.0741	0.628	98.6
Rxn #50	AnalytiCon Plate #15	B4	50	0.625	0.0741	0.628	0.5
Rxn #50	AnalytiCon Plate #15	C4	50	0.620	0.0741	0.628	1.4
Rxn #50	AnalytiCon Plate #15	D4	50	0.621	0.0741	0.628	1.3
Rxn #50	AnalytiCon Plate #15	E4	50	0.625	0.0741	0.628	0.5
Rxn #50	AnalytiCon Plate #15	F4	50	0.618	0.0741	0.628	1.8
Rxn #50	AnalytiCon Plate #15	G4	50	0.620	0.0741	0.628	1.4
Rxn #50	AnalytiCon Plate #15	H4: FOC	-	0.646	0.0741	0.628	-3.2
Rxn #50	AnalytiCon Plate #15	A5: NFC	-	0.084	0.0741	0.628	98.2
Rxn #50	AnalytiCon Plate #15	B5: NFC	-	0.072	0.0741	0.628	100.4
Rxn #50	AnalytiCon Plate #15	C5: NFC	-	0.072	0.0741	0.628	100.4
Rxn #50	AnalytiCon Plate #15	D5: NFC	-	0.072	0.0741	0.628	100.4
Rxn #50	AnalytiCon Plate #15	E5: FOC	-	0.622	0.0741	0.628	1.1
Rxn #50	AnalytiCon Plate #15	F5: FOC	-	0.626	0.0741	0.628	0.4
Rxn #50	AnalytiCon Plate #15	G5: FOC	-	0.656	0.0741	0.628	-5.1
Rxn #50	AnalytiCon Plate #15	H5: FOC	-	0.638	0.0741	0.628	-1.8
Rxn #50	AnalytiCon Plate #15	A6: NFC	-	0.069	0.0741	0.628	100.9
Rxn #50	AnalytiCon Plate #15	B6	50	0.606	0.0741	0.628	4.0
Rxn #50	AnalytiCon Plate #15	C6	50	0.614	0.0741	0.628	2.5
Rxn #50	AnalytiCon Plate #15	D6	50	0.613	0.0741	0.628	2.7
Rxn #50	AnalytiCon Plate #15	E6	50	0.602	0.0741	0.628	4.7
Rxn #50	AnalytiCon Plate #15	F6	50	0.586	0.0741	0.628	7.6
Rxn #50	AnalytiCon Plate #15	G6	50	0.608	0.0741	0.628	3.6
Rxn #50	AnalytiCon Plate #15	H6: FOC	-	0.620	0.0741	0.628	1.4
Rxn #50	AnalytiCon Plate #15	A7: NFC	-	0.072	0.0741	0.628	100.4
Rxn #50	AnalytiCon Plate #15	B7	50	0.564	0.0741	0.628	11.6
Rxn #50	AnalytiCon Plate #15	C7	50	0.623	0.0741	0.628	0.9
Rxn #50	AnalytiCon Plate #15	D7	50	0.553	0.0741	0.628	13.5
Rxn #50	AnalytiCon Plate #15	E7	50	0.631	0.0741	0.628	-0.5
Rxn #50	AnalytiCon Plate #15	F7	50	0.622	0.0741	0.628	1.1
Rxn #50	AnalytiCon Plate #15	G7	50	0.624	0.0741	0.628	0.7
Rxn #50	AnalytiCon Plate #15	H7: FOC	-	0.648	0.0741	0.628	-3.6
Rxn #50	AnalytiCon Plate #15	A8: NFC	-	0.065	0.0741	0.628	101.6
Rxn #50	AnalytiCon Plate #15	B8	50	0.622	0.0741	0.628	1.1
Rxn #50	AnalytiCon Plate #15	C8	50	0.625	0.0741	0.628	0.5
Rxn #50	AnalytiCon Plate #15	D8	50	0.635	0.0741	0.628	-1.3
Rxn #50	AnalytiCon Plate #15	E8	50	0.629	0.0741	0.628	-0.2
Rxn #50	AnalytiCon Plate #15	F8	50	0.633	0.0741	0.628	-0.9
Rxn #50	AnalytiCon Plate #15	G8	50	0.612	0.0741	0.628	2.9
Rxn #50	AnalytiCon Plate #15	H8: FOC	-	0.651	0.0741	0.628	-4.2
Rxn #50	AnalytiCon Plate #15	A9: NFC	-	0.075	0.0741	0.628	99.8
Rxn #50	AnalytiCon Plate #15	B9	50	0.574	0.0741	0.628	9.7
Rxn #50	AnalytiCon Plate #15	C9	50	0.651	0.0741	0.628	-4.2
Rxn #50	AnalytiCon Plate #15	D9	50	0.617	0.0741	0.628	2.0
Rxn #50	AnalytiCon Plate #15	E9	50	0.630	0.0741	0.628	-0.4
Rxn #50	AnalytiCon Plate #15	F9	50	0.630	0.0741	0.628	-0.4
Rxn #50	AnalytiCon Plate #15	G9	50	0.636	0.0741	0.628	-1.4
Rxn #50	AnalytiCon Plate #15	H9: FOC	-	0.650	0.0741	0.628	-4.0

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #50	AnalytiCon Plate #15	A10: NFC	-	0.067	0.0741	0.628	101.3
Rxn #50	AnalytiCon Plate #15	B10	50	0.524	0.0741	0.628	18.8
Rxn #50	AnalytiCon Plate #15	C10	50	0.623	0.0741	0.628	0.9
Rxn #50	AnalytiCon Plate #15	D10	50	0.622	0.0741	0.628	1.1
Rxn #50	AnalytiCon Plate #15	E10	50	0.623	0.0741	0.628	0.9
Rxn #50	AnalytiCon Plate #15	F10	50	0.607	0.0741	0.628	3.8
Rxn #50	AnalytiCon Plate #15	G10	50	0.605	0.0741	0.628	4.2
Rxn #50	AnalytiCon Plate #15	H10: FOC	-	0.636	0.0741	0.628	-1.4
Rxn #50	AnalytiCon Plate #15	A11: NFC	-	0.072	0.0741	0.628	100.4
Rxn #50	AnalytiCon Plate #15	B11	50	0.633	0.0741	0.628	-0.9
Rxn #50	AnalytiCon Plate #15	C11	50	0.636	0.0741	0.628	-1.4
Rxn #50	AnalytiCon Plate #15	D11	50	0.632	0.0741	0.628	-0.7
Rxn #50	AnalytiCon Plate #15	E11	50	0.626	0.0741	0.628	0.4
Rxn #50	AnalytiCon Plate #15	F11	50	0.627	0.0741	0.628	0.2
Rxn #50	AnalytiCon Plate #15	G11	50	0.663	0.0741	0.628	-6.3
Rxn #50	AnalytiCon Plate #15	H11: FOC	-	0.640	0.0741	0.628	-2.2
Rxn #50	AnalytiCon Plate #15	A12: NFC	-	0.059	0.0741	0.628	102.7
Rxn #50	AnalytiCon Plate #15	H12: FOC	-	0.636	0.0741	0.628	-1.4
Rxn #51	AnalytiCon Plate #16	A1: NFC	-	0.103	0.0833	0.632	96.4
Rxn #51	AnalytiCon Plate #16	B1	50	0.590	0.0833	0.632	7.7
Rxn #51	AnalytiCon Plate #16	C1	50	0.546	0.0833	0.632	15.7
Rxn #51	AnalytiCon Plate #16	D1	50	0.645	0.0833	0.632	-2.4
Rxn #51	AnalytiCon Plate #16	E1	50	0.635	0.0833	0.632	-0.5
Rxn #51	AnalytiCon Plate #16	F1	50	0.626	0.0833	0.632	1.1
Rxn #51	AnalytiCon Plate #16	G1	50	0.650	0.0833	0.632	-3.3
Rxn #51	AnalytiCon Plate #16	H1: FOC	-	0.642	0.0833	0.632	-1.8
Rxn #51	AnalytiCon Plate #16	A2: NFC	-	0.095	0.0833	0.632	97.9
Rxn #51	AnalytiCon Plate #16	B2	50	0.644	0.0833	0.632	-2.2
Rxn #51	AnalytiCon Plate #16	C2	50	0.622	0.0833	0.632	1.8
Rxn #51	AnalytiCon Plate #16	D2	50	0.651	0.0833	0.632	-3.5
Rxn #51	AnalytiCon Plate #16	E2	50	0.642	0.0833	0.632	-1.8
Rxn #51	AnalytiCon Plate #16	F2	50	0.609	0.0833	0.632	4.2
Rxn #51	AnalytiCon Plate #16	G2	50	0.629	0.0833	0.632	0.5
Rxn #51	AnalytiCon Plate #16	H2: FOC	-	0.618	0.0833	0.632	2.6
Rxn #51	AnalytiCon Plate #16	A3: NFC	-	0.116	0.0833	0.632	94.0
Rxn #51	AnalytiCon Plate #16	B3	50	0.577	0.0833	0.632	10.0
Rxn #51	AnalytiCon Plate #16	C3	50	0.608	0.0833	0.632	4.4
Rxn #51	AnalytiCon Plate #16	D3	50	0.612	0.0833	0.632	3.6
Rxn #51	AnalytiCon Plate #16	E3	50	0.614	0.0833	0.632	3.3
Rxn #51	AnalytiCon Plate #16	F3	50	0.557	0.0833	0.632	13.7
Rxn #51	AnalytiCon Plate #16	G3	50	0.608	0.0833	0.632	4.4
Rxn #51	AnalytiCon Plate #16	H3: FOC	-	0.629	0.0833	0.632	0.5
Rxn #51	AnalytiCon Plate #16	A4: NFC	-	0.106	0.0833	0.632	95.9
Rxn #51	AnalytiCon Plate #16	B4	50	0.619	0.0833	0.632	2.4
Rxn #51	AnalytiCon Plate #16	C4	50	0.574	0.0833	0.632	10.6
Rxn #51	AnalytiCon Plate #16	D4	50	0.600	0.0833	0.632	5.8
Rxn #51	AnalytiCon Plate #16	E4	50	0.624	0.0833	0.632	1.5
Rxn #51	AnalytiCon Plate #16	F4	50	0.606	0.0833	0.632	4.7
Rxn #51	AnalytiCon Plate #16	G4	50	0.607	0.0833	0.632	4.6
Rxn #51	AnalytiCon Plate #16	H4: FOC	-	0.634	0.0833	0.632	-0.4
Rxn #51	AnalytiCon Plate #16	A5: NFC	-	0.117	0.0833	0.632	93.9
Rxn #51	AnalytiCon Plate #16	B5: NFC	-	0.071	0.0833	0.632	102.2
Rxn #51	AnalytiCon Plate #16	C5: NFC	-	0.073	0.0833	0.632	101.9
Rxn #51	AnalytiCon Plate #16	D5: NFC	-	0.067	0.0833	0.632	103.0
Rxn #51	AnalytiCon Plate #16	E5: FOC	-	0.635	0.0833	0.632	-0.5
Rxn #51	AnalytiCon Plate #16	F5: FOC	-	0.635	0.0833	0.632	-0.5
Rxn #51	AnalytiCon Plate #16	G5: FOC	-	0.634	0.0833	0.632	-0.4
Rxn #51	AnalytiCon Plate #16	H5: FOC	-	0.637	0.0833	0.632	-0.9
Rxn #51	AnalytiCon Plate #16	A6: NFC	-	0.070	0.0833	0.632	102.4
Rxn #51	AnalytiCon Plate #16	B6	50	0.620	0.0833	0.632	2.2
Rxn #51	AnalytiCon Plate #16	C6	50	0.577	0.0833	0.632	10.0
Rxn #51	AnalytiCon Plate #16	D6	50	0.619	0.0833	0.632	2.4
Rxn #51	AnalytiCon Plate #16	E6	50	0.635	0.0833	0.632	-0.5
Rxn #51	AnalytiCon Plate #16	F6	50	0.651	0.0833	0.632	-3.5
Rxn #51	AnalytiCon Plate #16	G6	50	0.628	0.0833	0.632	0.7
Rxn #51	AnalytiCon Plate #16	H6: FOC	-	0.639	0.0833	0.632	-1.3
Rxn #51	AnalytiCon Plate #16	A7: NFC	-	0.087	0.0833	0.632	99.3
Rxn #51	AnalytiCon Plate #16	B7	50	0.604	0.0833	0.632	5.1
Rxn #51	AnalytiCon Plate #16	C7	50	0.628	0.0833	0.632	0.7
Rxn #51	AnalytiCon Plate #16	D7	50	0.651	0.0833	0.632	-3.5
Rxn #51	AnalytiCon Plate #16	E7	50	0.650	0.0833	0.632	-3.3
Rxn #51	AnalytiCon Plate #16	F7	50	0.611	0.0833	0.632	3.8
Rxn #51	AnalytiCon Plate #16	G7	50	0.632	0.0833	0.632	0.0
Rxn #51	AnalytiCon Plate #16	H7: FOC	-	0.614	0.0833	0.632	3.3

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #51	AnalytiCon Plate #16	A8: NFC	-	0.079	0.0833	0.632	100.8
Rxn #51	AnalytiCon Plate #16	B8	50	0.609	0.0833	0.632	4.2
Rxn #51	AnalytiCon Plate #16	C8	50	0.644	0.0833	0.632	-2.2
Rxn #51	AnalytiCon Plate #16	D8	50	0.542	0.0833	0.632	16.4
Rxn #51	AnalytiCon Plate #16	E8	50	0.604	0.0833	0.632	5.1
Rxn #51	AnalytiCon Plate #16	F8	50	0.616	0.0833	0.632	2.9
Rxn #51	AnalytiCon Plate #16	G8	50	0.633	0.0833	0.632	-0.2
Rxn #51	AnalytiCon Plate #16	H8: FOC	-	0.634	0.0833	0.632	-0.4
Rxn #51	AnalytiCon Plate #16	A9: NFC	-	0.063	0.0833	0.632	103.7
Rxn #51	AnalytiCon Plate #16	B9	50	0.659	0.0833	0.632	-4.9
Rxn #51	AnalytiCon Plate #16	C9	50	0.619	0.0833	0.632	2.4
Rxn #51	AnalytiCon Plate #16	D9	50	0.653	0.0833	0.632	-3.8
Rxn #51	AnalytiCon Plate #16	E9	50	0.592	0.0833	0.632	7.3
Rxn #51	AnalytiCon Plate #16	F9	50	0.633	0.0833	0.632	-0.2
Rxn #51	AnalytiCon Plate #16	G9	50	0.618	0.0833	0.632	2.6
Rxn #51	AnalytiCon Plate #16	H9: FOC	-	0.655	0.0833	0.632	-4.2
Rxn #51	AnalytiCon Plate #16	A10: NFC	-	0.070	0.0833	0.632	102.4
Rxn #51	AnalytiCon Plate #16	B10	50	0.579	0.0833	0.632	9.7
Rxn #51	AnalytiCon Plate #16	C10	50	0.621	0.0833	0.632	2.0
Rxn #51	AnalytiCon Plate #16	D10	50	0.612	0.0833	0.632	3.6
Rxn #51	AnalytiCon Plate #16	E10	50	0.639	0.0833	0.632	-1.3
Rxn #51	AnalytiCon Plate #16	F10	50	0.621	0.0833	0.632	2.0
Rxn #51	AnalytiCon Plate #16	G10	50	0.616	0.0833	0.632	2.9
Rxn #51	AnalytiCon Plate #16	H10: FOC	-	0.598	0.0833	0.632	6.2
Rxn #51	AnalytiCon Plate #16	A11: NFC	-	0.068	0.0833	0.632	102.8
Rxn #51	AnalytiCon Plate #16	B11	50	0.604	0.0833	0.632	5.1
Rxn #51	AnalytiCon Plate #16	C11	50	0.595	0.0833	0.632	6.7
Rxn #51	AnalytiCon Plate #16	D11	50	0.626	0.0833	0.632	1.1
Rxn #51	AnalytiCon Plate #16	E11	50	0.583	0.0833	0.632	8.9
Rxn #51	AnalytiCon Plate #16	F11	50	0.622	0.0833	0.632	1.8
Rxn #51	AnalytiCon Plate #16	G11	50	0.635	0.0833	0.632	-0.5
Rxn #51	AnalytiCon Plate #16	H11: FOC	-	0.603	0.0833	0.632	5.3
Rxn #51	AnalytiCon Plate #16	A12: NFC	-	0.065	0.0833	0.632	103.3
Rxn #51	AnalytiCon Plate #16	H12: FOC	-	0.577	0.0833	0.632	10.0
Rxn #52	AnalytiCon Plate #17	A1: NFC	-	0.068	0.0598	0.561	98.4
Rxn #52	AnalytiCon Plate #17	B1	50	0.509	0.0598	0.561	10.4
Rxn #52	AnalytiCon Plate #17	C1	50	0.465	0.0598	0.561	19.2
Rxn #52	AnalytiCon Plate #17	D1	50	0.522	0.0598	0.561	7.8
Rxn #52	AnalytiCon Plate #17	E1	50	0.519	0.0598	0.561	8.4
Rxn #52	AnalytiCon Plate #17	F1	50	0.535	0.0598	0.561	5.2
Rxn #52	AnalytiCon Plate #17	G1	50	0.520	0.0598	0.561	8.2
Rxn #52	AnalytiCon Plate #17	H1: FOC	-	0.524	0.0598	0.561	7.4
Rxn #52	AnalytiCon Plate #17	A2: NFC	-	0.070	0.0598	0.561	98.0
Rxn #52	AnalytiCon Plate #17	B2	50	0.573	0.0598	0.561	-2.4
Rxn #52	AnalytiCon Plate #17	C2	50	0.499	0.0598	0.561	12.4
Rxn #52	AnalytiCon Plate #17	D2	50	0.559	0.0598	0.561	0.4
Rxn #52	AnalytiCon Plate #17	E2	50	0.512	0.0598	0.561	9.8
Rxn #52	AnalytiCon Plate #17	F2	50	0.547	0.0598	0.561	2.8
Rxn #52	AnalytiCon Plate #17	G2	50	0.405	0.0598	0.561	31.1
Rxn #52	AnalytiCon Plate #17	H2: FOC	-	0.556	0.0598	0.561	1.0
Rxn #52	AnalytiCon Plate #17	A3: NFC	-	0.064	0.0598	0.561	99.2
Rxn #52	AnalytiCon Plate #17	B3	50	0.565	0.0598	0.561	-0.8
Rxn #52	AnalytiCon Plate #17	C3	50	0.503	0.0598	0.561	11.6
Rxn #52	AnalytiCon Plate #17	D3	50	0.539	0.0598	0.561	4.4
Rxn #52	AnalytiCon Plate #17	E3	50	0.550	0.0598	0.561	2.2
Rxn #52	AnalytiCon Plate #17	F3	50	0.562	0.0598	0.561	-0.2
Rxn #52	AnalytiCon Plate #17	G3	50	0.458	0.0598	0.561	20.6
Rxn #52	AnalytiCon Plate #17	H3: FOC	-	0.565	0.0598	0.561	-0.8
Rxn #52	AnalytiCon Plate #17	A4: NFC	-	0.064	0.0598	0.561	99.2
Rxn #52	AnalytiCon Plate #17	B4	50	0.474	0.0598	0.561	17.4
Rxn #52	AnalytiCon Plate #17	C4	50	0.454	0.0598	0.561	21.3
Rxn #52	AnalytiCon Plate #17	D4	50	0.533	0.0598	0.561	5.6
Rxn #52	AnalytiCon Plate #17	E4	50	0.563	0.0598	0.561	-0.4
Rxn #52	AnalytiCon Plate #17	F4	50	0.551	0.0598	0.561	2.0
Rxn #52	AnalytiCon Plate #17	G4	50	0.553	0.0598	0.561	1.6
Rxn #52	AnalytiCon Plate #17	H4: FOC	-	0.574	0.0598	0.561	-2.6
Rxn #52	AnalytiCon Plate #17	A5: NFC	-	0.054	0.0598	0.561	101.2
Rxn #52	AnalytiCon Plate #17	B5: NFC	-	0.063	0.0598	0.561	99.4
Rxn #52	AnalytiCon Plate #17	C5: NFC	-	0.052	0.0598	0.561	101.6
Rxn #52	AnalytiCon Plate #17	D5: NFC	-	0.061	0.0598	0.561	99.8
Rxn #52	AnalytiCon Plate #17	E5: FOC	-	0.575	0.0598	0.561	-2.8
Rxn #52	AnalytiCon Plate #17	F5: FOC	-	0.570	0.0598	0.561	-1.8
Rxn #52	AnalytiCon Plate #17	G5: FOC	-	0.562	0.0598	0.561	-0.2
Rxn #52	AnalytiCon Plate #17	H5: FOC	-	0.564	0.0598	0.561	-0.6

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #52	AnalytiCon Plate #17	A6: NFC	-	0.060	0.0598	0.561	100.0
Rxn #52	AnalytiCon Plate #17	B6	50	0.573	0.0598	0.561	-2.4
Rxn #52	AnalytiCon Plate #17	C6	50	0.496	0.0598	0.561	13.0
Rxn #52	AnalytiCon Plate #17	D6	50	0.408	0.0598	0.561	30.5
Rxn #52	AnalytiCon Plate #17	E6	50	0.519	0.0598	0.561	8.4
Rxn #52	AnalytiCon Plate #17	F6	50	0.585	0.0598	0.561	-4.8
Rxn #52	AnalytiCon Plate #17	G6	50	0.545	0.0598	0.561	3.2
Rxn #52	AnalytiCon Plate #17	H6: FOC	-	0.564	0.0598	0.561	-0.6
Rxn #52	AnalytiCon Plate #17	A7: NFC	-	0.062	0.0598	0.561	99.6
Rxn #52	AnalytiCon Plate #17	B7	50	0.578	0.0598	0.561	-3.4
Rxn #52	AnalytiCon Plate #17	C7	50	0.500	0.0598	0.561	12.2
Rxn #52	AnalytiCon Plate #17	D7	50	0.548	0.0598	0.561	2.6
Rxn #52	AnalytiCon Plate #17	E7	50	0.541	0.0598	0.561	4.0
Rxn #52	AnalytiCon Plate #17	F7	50	0.522	0.0598	0.561	7.8
Rxn #52	AnalytiCon Plate #17	G7	50	0.576	0.0598	0.561	-3.0
Rxn #52	AnalytiCon Plate #17	H7: FOC	-	0.554	0.0598	0.561	1.4
Rxn #52	AnalytiCon Plate #17	A8: NFC	-	0.056	0.0598	0.561	100.8
Rxn #52	AnalytiCon Plate #17	B8	50	0.569	0.0598	0.561	-1.6
Rxn #52	AnalytiCon Plate #17	C8	50	0.511	0.0598	0.561	10.0
Rxn #52	AnalytiCon Plate #17	D8	50	0.599	0.0598	0.561	-7.6
Rxn #52	AnalytiCon Plate #17	E8	50	0.566	0.0598	0.561	-1.0
Rxn #52	AnalytiCon Plate #17	F8	50	0.565	0.0598	0.561	-0.8
Rxn #52	AnalytiCon Plate #17	G8	50	0.417	0.0598	0.561	28.7
Rxn #52	AnalytiCon Plate #17	H8: FOC	-	0.586	0.0598	0.561	-5.0
Rxn #52	AnalytiCon Plate #17	A9: NFC	-	0.060	0.0598	0.561	100.0
Rxn #52	AnalytiCon Plate #17	B9	50	0.582	0.0598	0.561	-4.2
Rxn #52	AnalytiCon Plate #17	C9	50	0.481	0.0598	0.561	16.0
Rxn #52	AnalytiCon Plate #17	D9	50	0.571	0.0598	0.561	-2.0
Rxn #52	AnalytiCon Plate #17	E9	50	0.566	0.0598	0.561	-1.0
Rxn #52	AnalytiCon Plate #17	F9	50	0.524	0.0598	0.561	7.4
Rxn #52	AnalytiCon Plate #17	G9	50	0.563	0.0598	0.561	-0.4
Rxn #52	AnalytiCon Plate #17	H9: FOC	-	0.566	0.0598	0.561	-1.0
Rxn #52	AnalytiCon Plate #17	A10: NFC	-	0.052	0.0598	0.561	101.6
Rxn #52	AnalytiCon Plate #17	B10	50	0.480	0.0598	0.561	16.2
Rxn #52	AnalytiCon Plate #17	C10	50	0.464	0.0598	0.561	19.4
Rxn #52	AnalytiCon Plate #17	D10	50	0.556	0.0598	0.561	1.0
Rxn #52	AnalytiCon Plate #17	E10	50	0.528	0.0598	0.561	6.6
Rxn #52	AnalytiCon Plate #17	F10	50	0.547	0.0598	0.561	2.8
Rxn #52	AnalytiCon Plate #17	G10	50	0.557	0.0598	0.561	0.8
Rxn #52	AnalytiCon Plate #17	H10: FOC	-	0.542	0.0598	0.561	3.8
Rxn #52	AnalytiCon Plate #17	A11: NFC	-	0.055	0.0598	0.561	101.0
Rxn #52	AnalytiCon Plate #17	B11	50	0.517	0.0598	0.561	8.8
Rxn #52	AnalytiCon Plate #17	C11	50	0.486	0.0598	0.561	15.0
Rxn #52	AnalytiCon Plate #17	D11	50	0.534	0.0598	0.561	5.4
Rxn #52	AnalytiCon Plate #17	E11	50	0.524	0.0598	0.561	7.4
Rxn #52	AnalytiCon Plate #17	F11	50	0.561	0.0598	0.561	0.0
Rxn #52	AnalytiCon Plate #17	G11	50	0.549	0.0598	0.561	2.4
Rxn #52	AnalytiCon Plate #17	H11: FOC	-	0.575	0.0598	0.561	-2.8
Rxn #52	AnalytiCon Plate #17	A12: NFC	-	0.056	0.0598	0.561	100.8
Rxn #52	AnalytiCon Plate #17	H12: FOC	-	0.554	0.0598	0.561	1.4
Rxn #53	AnalytiCon Plate #18	A1: NFC	-	0.099	0.0772	0.533	95.2
Rxn #53	AnalytiCon Plate #18	B1	50	0.487	0.0772	0.533	10.1
Rxn #53	AnalytiCon Plate #18	C1	50	0.534	0.0772	0.533	-0.2
Rxn #53	AnalytiCon Plate #18	D1	50	0.572	0.0772	0.533	-8.6
Rxn #53	AnalytiCon Plate #18	E1	50	0.562	0.0772	0.533	-6.4
Rxn #53	AnalytiCon Plate #18	F1	50	0.574	0.0772	0.533	-9.0
Rxn #53	AnalytiCon Plate #18	G1	50	0.605	0.0772	0.533	-15.8
Rxn #53	AnalytiCon Plate #18	H1: FOC	-	0.554	0.0772	0.533	-4.6
Rxn #53	AnalytiCon Plate #18	A2: NFC	-	0.065	0.0772	0.533	102.7
Rxn #53	AnalytiCon Plate #18	B2	50	0.624	0.0772	0.533	-20.0
Rxn #53	AnalytiCon Plate #18	C2	50	0.587	0.0772	0.533	-11.8
Rxn #53	AnalytiCon Plate #18	D2	50	0.574	0.0772	0.533	-9.0
Rxn #53	AnalytiCon Plate #18	E2	50	0.561	0.0772	0.533	-6.1
Rxn #53	AnalytiCon Plate #18	F2	50	0.582	0.0772	0.533	-10.8
Rxn #53	AnalytiCon Plate #18	G2	50	0.530	0.0772	0.533	0.7
Rxn #53	AnalytiCon Plate #18	H2: FOC	-	0.557	0.0772	0.533	-5.3
Rxn #53	AnalytiCon Plate #18	A3: NFC	-	0.073	0.0772	0.533	100.9
Rxn #53	AnalytiCon Plate #18	B3	50	0.534	0.0772	0.533	-0.2
Rxn #53	AnalytiCon Plate #18	C3	50	0.576	0.0772	0.533	-9.4
Rxn #53	AnalytiCon Plate #18	D3	50	0.511	0.0772	0.533	4.8
Rxn #53	AnalytiCon Plate #18	E3	50	0.507	0.0772	0.533	5.7
Rxn #53	AnalytiCon Plate #18	F3	50	0.595	0.0772	0.533	-13.6
Rxn #53	AnalytiCon Plate #18	G3	50	0.556	0.0772	0.533	-5.0
Rxn #53	AnalytiCon Plate #18	H3: FOC	-	0.564	0.0772	0.533	-6.8

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #53	AnalytiCon Plate #18	A4: NFC	-	0.101	0.0772	0.533	94.8
Rxn #53	AnalytiCon Plate #18	B4	50	0.566	0.0772	0.533	-7.2
Rxn #53	AnalytiCon Plate #18	C4	50	0.563	0.0772	0.533	-6.6
Rxn #53	AnalytiCon Plate #18	D4	50	0.573	0.0772	0.533	-8.8
Rxn #53	AnalytiCon Plate #18	E4	50	0.471	0.0772	0.533	13.6
Rxn #53	AnalytiCon Plate #18	F4	50	0.583	0.0772	0.533	-11.0
Rxn #53	AnalytiCon Plate #18	G4	50	0.517	0.0772	0.533	3.5
Rxn #53	AnalytiCon Plate #18	H4: FOC	-	0.220	0.0772	0.533	68.7
Rxn #53	AnalytiCon Plate #18	A5: NFC	-	0.083	0.0772	0.533	98.7
Rxn #53	AnalytiCon Plate #18	B5: NFC	-	0.072	0.0772	0.533	101.1
Rxn #53	AnalytiCon Plate #18	C5: NFC	-	0.069	0.0772	0.533	101.8
Rxn #53	AnalytiCon Plate #18	D5: NFC	-	0.067	0.0772	0.533	102.2
Rxn #53	AnalytiCon Plate #18	E5: FOC	-	0.583	0.0772	0.533	-11.0
Rxn #53	AnalytiCon Plate #18	F5: FOC	-	0.566	0.0772	0.533	-7.2
Rxn #53	AnalytiCon Plate #18	G5: FOC	-	0.582	0.0772	0.533	-10.8
Rxn #53	AnalytiCon Plate #18	H5: FOC	-	0.558	0.0772	0.533	-5.5
Rxn #53	AnalytiCon Plate #18	A6: NFC	-	0.077	0.0772	0.533	100.0
Rxn #53	AnalytiCon Plate #18	B6	50	0.546	0.0772	0.533	-2.9
Rxn #53	AnalytiCon Plate #18	C6	50	0.561	0.0772	0.533	-6.1
Rxn #53	AnalytiCon Plate #18	D6	50	0.589	0.0772	0.533	-12.3
Rxn #53	AnalytiCon Plate #18	E6	50	0.588	0.0772	0.533	-12.1
Rxn #53	AnalytiCon Plate #18	F6	50	0.571	0.0772	0.533	-8.3
Rxn #53	AnalytiCon Plate #18	G6	50	0.519	0.0772	0.533	3.1
Rxn #53	AnalytiCon Plate #18	H6: FOC	-	0.575	0.0772	0.533	-9.2
Rxn #53	AnalytiCon Plate #18	A7: NFC	-	0.064	0.0772	0.533	102.9
Rxn #53	AnalytiCon Plate #18	B7	50	0.596	0.0772	0.533	-13.8
Rxn #53	AnalytiCon Plate #18	C7	50	0.533	0.0772	0.533	0.0
Rxn #53	AnalytiCon Plate #18	D7	50	0.593	0.0772	0.533	-13.2
Rxn #53	AnalytiCon Plate #18	E7	50	0.639	0.0772	0.533	-23.3
Rxn #53	AnalytiCon Plate #18	F7	50	0.605	0.0772	0.533	-15.8
Rxn #53	AnalytiCon Plate #18	G7	50	0.580	0.0772	0.533	-10.3
Rxn #53	AnalytiCon Plate #18	H7: FOC	-	0.570	0.0772	0.533	-8.1
Rxn #53	AnalytiCon Plate #18	A8: NFC	-	0.063	0.0772	0.533	103.1
Rxn #53	AnalytiCon Plate #18	B8	50	0.592	0.0772	0.533	-12.9
Rxn #53	AnalytiCon Plate #18	C8	50	0.551	0.0772	0.533	-3.9
Rxn #53	AnalytiCon Plate #18	D8	50	0.576	0.0772	0.533	-9.4
Rxn #53	AnalytiCon Plate #18	E8	50	0.581	0.0772	0.533	-10.5
Rxn #53	AnalytiCon Plate #18	F8	50	0.585	0.0772	0.533	-11.4
Rxn #53	AnalytiCon Plate #18	G8	50	0.587	0.0772	0.533	-11.8
Rxn #53	AnalytiCon Plate #18	H8: FOC	-	0.572	0.0772	0.533	-8.6
Rxn #53	AnalytiCon Plate #18	A9: NFC	-	0.075	0.0772	0.533	100.5
Rxn #53	AnalytiCon Plate #18	B9	50	0.575	0.0772	0.533	-9.2
Rxn #53	AnalytiCon Plate #18	C9	50	0.537	0.0772	0.533	-0.9
Rxn #53	AnalytiCon Plate #18	D9	50	0.556	0.0772	0.533	-5.0
Rxn #53	AnalytiCon Plate #18	E9	50	0.576	0.0772	0.533	-9.4
Rxn #53	AnalytiCon Plate #18	F9	50	0.575	0.0772	0.533	-9.2
Rxn #53	AnalytiCon Plate #18	G9	50	0.580	0.0772	0.533	-10.3
Rxn #53	AnalytiCon Plate #18	H9: FOC	-	0.588	0.0772	0.533	-12.1
Rxn #53	AnalytiCon Plate #18	A10: NFC	-	0.081	0.0772	0.533	99.2
Rxn #53	AnalytiCon Plate #18	B10	50	0.605	0.0772	0.533	-15.8
Rxn #53	AnalytiCon Plate #18	C10	50	0.504	0.0772	0.533	6.4
Rxn #53	AnalytiCon Plate #18	D10	50	0.547	0.0772	0.533	-3.1
Rxn #53	AnalytiCon Plate #18	E10	50	0.547	0.0772	0.533	-3.1
Rxn #53	AnalytiCon Plate #18	F10	50	0.563	0.0772	0.533	-6.6
Rxn #53	AnalytiCon Plate #18	G10	50	0.551	0.0772	0.533	-3.9
Rxn #53	AnalytiCon Plate #18	H10: FOC	-	0.555	0.0772	0.533	-4.8
Rxn #53	AnalytiCon Plate #18	A11: NFC	-	0.068	0.0772	0.533	102.0
Rxn #53	AnalytiCon Plate #18	B11	50	0.570	0.0772	0.533	-8.1
Rxn #53	AnalytiCon Plate #18	C11	50	0.464	0.0772	0.533	15.1
Rxn #53	AnalytiCon Plate #18	D11	50	0.549	0.0772	0.533	-3.5
Rxn #53	AnalytiCon Plate #18	E11	50	0.575	0.0772	0.533	-9.2
Rxn #53	AnalytiCon Plate #18	F11	50	0.543	0.0772	0.533	-2.2
Rxn #53	AnalytiCon Plate #18	G11	50	0.565	0.0772	0.533	-7.0
Rxn #53	AnalytiCon Plate #18	H11: FOC	-	0.547	0.0772	0.533	-3.1
Rxn #53	AnalytiCon Plate #18	A12: NFC	-	0.101	0.0772	0.533	94.8
Rxn #53	AnalytiCon Plate #18	H12: FOC	-	0.550	0.0772	0.533	-3.7
Rxn #54	AnalytiCon Plate #19	A1: NFC	-	0.047	0.0518	0.587	100.9
Rxn #54	AnalytiCon Plate #19	B1	50	0.475	0.0518	0.587	20.9
Rxn #54	AnalytiCon Plate #19	C1	50	0.558	0.0518	0.587	5.4
Rxn #54	AnalytiCon Plate #19	D1	50	0.551	0.0518	0.587	6.7
Rxn #54	AnalytiCon Plate #19	E1	50	0.439	0.0518	0.587	27.7
Rxn #54	AnalytiCon Plate #19	F1	50	0.549	0.0518	0.587	7.1
Rxn #54	AnalytiCon Plate #19	G1	50	0.541	0.0518	0.587	8.6
Rxn #54	AnalytiCon Plate #19	H1: FOC	-	0.538	0.0518	0.587	9.2

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #54	AnalytiCon Plate #19	A2: NFC	-	0.048	0.0518	0.587	100.7
Rxn #54	AnalytiCon Plate #19	B2	50	0.584	0.0518	0.587	0.6
Rxn #54	AnalytiCon Plate #19	C2	50	0.529	0.0518	0.587	10.8
Rxn #54	AnalytiCon Plate #19	D2	50	0.549	0.0518	0.587	7.1
Rxn #54	AnalytiCon Plate #19	E2	50	0.562	0.0518	0.587	4.7
Rxn #54	AnalytiCon Plate #19	F2	50	0.469	0.0518	0.587	22.0
Rxn #54	AnalytiCon Plate #19	G2	50	0.462	0.0518	0.587	23.4
Rxn #54	AnalytiCon Plate #19	H2: FOC	-	0.592	0.0518	0.587	-0.9
Rxn #54	AnalytiCon Plate #19	A3: NFC	-	0.055	0.0518	0.587	99.4
Rxn #54	AnalytiCon Plate #19	B3	50	0.590	0.0518	0.587	-0.6
Rxn #54	AnalytiCon Plate #19	C3	50	0.597	0.0518	0.587	-1.9
Rxn #54	AnalytiCon Plate #19	D3	50	0.622	0.0518	0.587	-6.5
Rxn #54	AnalytiCon Plate #19	E3	50	0.750	0.0518	0.587	-30.5
Rxn #54	AnalytiCon Plate #19	F3	50	0.580	0.0518	0.587	1.3
Rxn #54	AnalytiCon Plate #19	G3	50	0.574	0.0518	0.587	2.4
Rxn #54	AnalytiCon Plate #19	H3: FOC	-	0.573	0.0518	0.587	2.6
Rxn #54	AnalytiCon Plate #19	A4: NFC	-	0.054	0.0518	0.587	99.6
Rxn #54	AnalytiCon Plate #19	B4	50	0.567	0.0518	0.587	3.7
Rxn #54	AnalytiCon Plate #19	C4	50	0.592	0.0518	0.587	-0.9
Rxn #54	AnalytiCon Plate #19	D4	50	0.597	0.0518	0.587	-1.9
Rxn #54	AnalytiCon Plate #19	E4	50	0.632	0.0518	0.587	-8.4
Rxn #54	AnalytiCon Plate #19	F4	50	0.545	0.0518	0.587	7.8
Rxn #54	AnalytiCon Plate #19	G4	50	0.604	0.0518	0.587	-3.2
Rxn #54	AnalytiCon Plate #19	H4: FOC	-	0.606	0.0518	0.587	-3.6
Rxn #54	AnalytiCon Plate #19	A5: NFC	-	0.047	0.0518	0.587	100.9
Rxn #54	AnalytiCon Plate #19	B5: NFC	-	0.049	0.0518	0.587	100.5
Rxn #54	AnalytiCon Plate #19	C5: NFC	-	0.046	0.0518	0.587	101.1
Rxn #54	AnalytiCon Plate #19	D5: NFC	-	0.048	0.0518	0.587	100.7
Rxn #54	AnalytiCon Plate #19	E5: FOC	-	0.618	0.0518	0.587	-5.8
Rxn #54	AnalytiCon Plate #19	F5: FOC	-	0.577	0.0518	0.587	1.9
Rxn #54	AnalytiCon Plate #19	G5: FOC	-	0.573	0.0518	0.587	2.6
Rxn #54	AnalytiCon Plate #19	H5: FOC	-	0.579	0.0518	0.587	1.5
Rxn #54	AnalytiCon Plate #19	A6: NFC	-	0.089	0.0518	0.587	93.0
Rxn #54	AnalytiCon Plate #19	B6	50	0.593	0.0518	0.587	-1.1
Rxn #54	AnalytiCon Plate #19	C6	50	0.619	0.0518	0.587	-6.0
Rxn #54	AnalytiCon Plate #19	D6	50	0.591	0.0518	0.587	-0.7
Rxn #54	AnalytiCon Plate #19	E6	50	0.596	0.0518	0.587	-1.7
Rxn #54	AnalytiCon Plate #19	F6	50	0.612	0.0518	0.587	-4.7
Rxn #54	AnalytiCon Plate #19	G6	50	0.607	0.0518	0.587	-3.7
Rxn #54	AnalytiCon Plate #19	H6: FOC	-	0.612	0.0518	0.587	-4.7
Rxn #54	AnalytiCon Plate #19	A7: NFC	-	0.048	0.0518	0.587	100.7
Rxn #54	AnalytiCon Plate #19	B7	50	0.575	0.0518	0.587	2.2
Rxn #54	AnalytiCon Plate #19	C7	50	0.580	0.0518	0.587	1.3
Rxn #54	AnalytiCon Plate #19	D7	50	0.616	0.0518	0.587	-5.4
Rxn #54	AnalytiCon Plate #19	E7	50	0.536	0.0518	0.587	9.5
Rxn #54	AnalytiCon Plate #19	F7	50	0.614	0.0518	0.587	-5.0
Rxn #54	AnalytiCon Plate #19	G7	50	0.575	0.0518	0.587	2.2
Rxn #54	AnalytiCon Plate #19	H7: FOC	-	0.600	0.0518	0.587	-2.4
Rxn #54	AnalytiCon Plate #19	A8: NFC	-	0.050	0.0518	0.587	100.3
Rxn #54	AnalytiCon Plate #19	B8	50	0.572	0.0518	0.587	2.8
Rxn #54	AnalytiCon Plate #19	C8	50	0.607	0.0518	0.587	-3.7
Rxn #54	AnalytiCon Plate #19	D8	50	0.625	0.0518	0.587	-7.1
Rxn #54	AnalytiCon Plate #19	E8	50	0.616	0.0518	0.587	-5.4
Rxn #54	AnalytiCon Plate #19	F8	50	0.550	0.0518	0.587	6.9
Rxn #54	AnalytiCon Plate #19	G8	50	0.581	0.0518	0.587	1.1
Rxn #54	AnalytiCon Plate #19	H8: FOC	-	0.610	0.0518	0.587	-4.3
Rxn #54	AnalytiCon Plate #19	A9: NFC	-	0.050	0.0518	0.587	100.3
Rxn #54	AnalytiCon Plate #19	B9	50	0.560	0.0518	0.587	5.0
Rxn #54	AnalytiCon Plate #19	C9	50	0.611	0.0518	0.587	-4.5
Rxn #54	AnalytiCon Plate #19	D9	50	0.618	0.0518	0.587	-5.8
Rxn #54	AnalytiCon Plate #19	E9	50	0.572	0.0518	0.587	2.8
Rxn #54	AnalytiCon Plate #19	F9	50	0.578	0.0518	0.587	1.7
Rxn #54	AnalytiCon Plate #19	G9	50	0.537	0.0518	0.587	9.3
Rxn #54	AnalytiCon Plate #19	H9: FOC	-	0.612	0.0518	0.587	-4.7
Rxn #54	AnalytiCon Plate #19	A10: NFC	-	0.054	0.0518	0.587	99.6
Rxn #54	AnalytiCon Plate #19	B10	50	0.466	0.0518	0.587	22.6
Rxn #54	AnalytiCon Plate #19	C10	50	0.592	0.0518	0.587	-0.9
Rxn #54	AnalytiCon Plate #19	D10	50	0.533	0.0518	0.587	10.1
Rxn #54	AnalytiCon Plate #19	E10	50	0.582	0.0518	0.587	0.9
Rxn #54	AnalytiCon Plate #19	F10	50	0.602	0.0518	0.587	-2.8
Rxn #54	AnalytiCon Plate #19	G10	50	0.613	0.0518	0.587	-4.9
Rxn #54	AnalytiCon Plate #19	H10: FOC	-	0.623	0.0518	0.587	-6.7
Rxn #54	AnalytiCon Plate #19	A11: NFC	-	0.043	0.0518	0.587	101.6
Rxn #54	AnalytiCon Plate #19	B11	50	0.497	0.0518	0.587	16.8

**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #54	AnalytiCon Plate #19	C11	50	0.522	0.0518	0.587	12.1
Rxn #54	AnalytiCon Plate #19	D11	50	0.636	0.0518	0.587	-9.2
Rxn #54	AnalytiCon Plate #19	E11	50	0.578	0.0518	0.587	1.7
Rxn #54	AnalytiCon Plate #19	F11	50	0.572	0.0518	0.587	2.8
Rxn #54	AnalytiCon Plate #19	G11	50	0.555	0.0518	0.587	6.0
Rxn #54	AnalytiCon Plate #19	H11: FOC	-	0.615	0.0518	0.587	-5.2
Rxn #54	AnalytiCon Plate #19	A12: NFC	-	0.049	0.0518	0.587	100.5
Rxn #54	AnalytiCon Plate #19	H12: FOC	-	0.611	0.0518	0.587	-4.5
Rxn #55	AnalytiCon Plate #20	A1: NFC	-	0.068	0.0641	0.579	99.2
Rxn #55	AnalytiCon Plate #20	B1	50	0.516	0.0641	0.579	12.2
Rxn #55	AnalytiCon Plate #20	C1	50	0.581	0.0641	0.579	-0.4
Rxn #55	AnalytiCon Plate #20	D1	50	0.556	0.0641	0.579	4.5
Rxn #55	AnalytiCon Plate #20	E1	50	0.529	0.0641	0.579	9.7
Rxn #55	AnalytiCon Plate #20	F1	50	0.541	0.0641	0.579	7.4
Rxn #55	AnalytiCon Plate #20	G1	50	0.559	0.0641	0.579	3.9
Rxn #55	AnalytiCon Plate #20	H1: FOC	-	0.551	0.0641	0.579	5.4
Rxn #55	AnalytiCon Plate #20	A2: NFC	-	0.068	0.0641	0.579	99.2
Rxn #55	AnalytiCon Plate #20	B2	50	0.447	0.0641	0.579	25.6
Rxn #55	AnalytiCon Plate #20	C2	50	0.426	0.0641	0.579	29.7
Rxn #55	AnalytiCon Plate #20	D2	50	0.571	0.0641	0.579	1.6
Rxn #55	AnalytiCon Plate #20	E2	50	0.544	0.0641	0.579	6.8
Rxn #55	AnalytiCon Plate #20	F2	50	0.456	0.0641	0.579	23.9
Rxn #55	AnalytiCon Plate #20	G2	50	0.526	0.0641	0.579	10.3
Rxn #55	AnalytiCon Plate #20	H2: FOC	-	0.563	0.0641	0.579	3.1
Rxn #55	AnalytiCon Plate #20	A3: NFC	-	0.053	0.0641	0.579	102.2
Rxn #55	AnalytiCon Plate #20	B3	50	0.471	0.0641	0.579	21.0
Rxn #55	AnalytiCon Plate #20	C3	50	0.575	0.0641	0.579	0.8
Rxn #55	AnalytiCon Plate #20	D3	50	0.486	0.0641	0.579	18.1
Rxn #55	AnalytiCon Plate #20	E3	50	0.559	0.0641	0.579	3.9
Rxn #55	AnalytiCon Plate #20	F3	50	0.485	0.0641	0.579	18.3
Rxn #55	AnalytiCon Plate #20	G3	50	0.437	0.0641	0.579	27.6
Rxn #55	AnalytiCon Plate #20	H3: FOC	-	0.563	0.0641	0.579	3.1
Rxn #55	AnalytiCon Plate #20	A4: NFC	-	0.068	0.0641	0.579	99.2
Rxn #55	AnalytiCon Plate #20	B4	50	0.538	0.0641	0.579	8.0
Rxn #55	AnalytiCon Plate #20	C4	50	0.512	0.0641	0.579	13.0
Rxn #55	AnalytiCon Plate #20	D4	50	0.569	0.0641	0.579	1.9
Rxn #55	AnalytiCon Plate #20	E4	50	0.554	0.0641	0.579	4.9
Rxn #55	AnalytiCon Plate #20	F4	50	0.565	0.0641	0.579	2.7
Rxn #55	AnalytiCon Plate #20	G4	50	0.505	0.0641	0.579	14.4
Rxn #55	AnalytiCon Plate #20	H4: FOC	-	0.579	0.0641	0.579	0.0
Rxn #55	AnalytiCon Plate #20	A5: NFC	-	0.066	0.0641	0.579	99.6
Rxn #55	AnalytiCon Plate #20	B5: NFC	-	0.048	0.0641	0.579	103.1
Rxn #55	AnalytiCon Plate #20	C5: NFC	-	0.054	0.0641	0.579	102.0
Rxn #55	AnalytiCon Plate #20	D5: NFC	-	0.051	0.0641	0.579	102.5
Rxn #55	AnalytiCon Plate #20	E5: FOC	-	0.580	0.0641	0.579	-0.2
Rxn #55	AnalytiCon Plate #20	F5: FOC	-	0.596	0.0641	0.579	-3.3
Rxn #55	AnalytiCon Plate #20	G5: FOC	-	0.588	0.0641	0.579	-1.7
Rxn #55	AnalytiCon Plate #20	H5: FOC	-	0.601	0.0641	0.579	-4.3
Rxn #55	AnalytiCon Plate #20	A6: NFC	-	0.068	0.0641	0.579	99.2
Rxn #55	AnalytiCon Plate #20	B6	50	0.550	0.0641	0.579	5.6
Rxn #55	AnalytiCon Plate #20	C6	50	0.571	0.0641	0.579	1.6
Rxn #55	AnalytiCon Plate #20	D6	50	0.552	0.0641	0.579	5.2
Rxn #55	AnalytiCon Plate #20	E6	50	0.552	0.0641	0.579	5.2
Rxn #55	AnalytiCon Plate #20	F6	50	0.587	0.0641	0.579	-1.6
Rxn #55	AnalytiCon Plate #20	G6	50	0.554	0.0641	0.579	4.9
Rxn #55	AnalytiCon Plate #20	H6: FOC	-	0.593	0.0641	0.579	-2.7
Rxn #55	AnalytiCon Plate #20	A7: NFC	-	0.078	0.0641	0.579	97.3
Rxn #55	AnalytiCon Plate #20	B7	50	0.471	0.0641	0.579	21.0
Rxn #55	AnalytiCon Plate #20	C7	50	0.539	0.0641	0.579	7.8
Rxn #55	AnalytiCon Plate #20	D7	50	0.552	0.0641	0.579	5.2
Rxn #55	AnalytiCon Plate #20	E7	50	0.612	0.0641	0.579	-6.4
Rxn #55	AnalytiCon Plate #20	F7	50	0.521	0.0641	0.579	11.3
Rxn #55	AnalytiCon Plate #20	G7	50	0.512	0.0641	0.579	13.0
Rxn #55	AnalytiCon Plate #20	H7: FOC	-	0.579	0.0641	0.579	0.0
Rxn #55	AnalytiCon Plate #20	A8: NFC	-	0.057	0.0641	0.579	101.4
Rxn #55	AnalytiCon Plate #20	B8	50	0.537	0.0641	0.579	8.2
Rxn #55	AnalytiCon Plate #20	C8	50	0.506	0.0641	0.579	14.2
Rxn #55	AnalytiCon Plate #20	D8	50	0.492	0.0641	0.579	16.9
Rxn #55	AnalytiCon Plate #20	E8	50	0.457	0.0641	0.579	23.7
Rxn #55	AnalytiCon Plate #20	F8	50	0.588	0.0641	0.579	-1.7
Rxn #55	AnalytiCon Plate #20	G8	50	0.552	0.0641	0.579	5.2
Rxn #55	AnalytiCon Plate #20	H8: FOC	-	0.584	0.0641	0.579	-1.0
Rxn #55	AnalytiCon Plate #20	A9: NFC	-	0.059	0.0641	0.579	101.0
Rxn #55	AnalytiCon Plate #20	B9	50	0.495	0.0641	0.579	16.3



**S3 Table. Data from Screening of Phytochemical Library for Inhibition of KHKC Activity.**

Rxn ID	Sample			Sample ( OD <sub>340nm</sub> )	Ave. No Fructose Controls ( OD <sub>340nm</sub> )	Ave. Fructose Only Controls ( OD <sub>340nm</sub> )	KHKC Inhibition (%)
	Phytochemical Plate	Well	Conc (µM)				
Rxn #55	AnalytiCon Plate #20	C9	50	0.553	0.0641	0.579	5.0
Rxn #55	AnalytiCon Plate #20	D9	50	0.586	0.0641	0.579	-1.4
Rxn #55	AnalytiCon Plate #20	E9	50	0.488	0.0641	0.579	17.7
Rxn #55	AnalytiCon Plate #20	F9	50	0.589	0.0641	0.579	-1.9
Rxn #55	AnalytiCon Plate #20	G9	50	0.551	0.0641	0.579	5.4
Rxn #55	AnalytiCon Plate #20	H9: FOC	-	0.565	0.0641	0.579	2.7
Rxn #55	AnalytiCon Plate #20	A10: NFC	-	0.078	0.0641	0.579	97.3
Rxn #55	AnalytiCon Plate #20	B10	50	0.561	0.0641	0.579	3.5
Rxn #55	AnalytiCon Plate #20	C10	50	0.505	0.0641	0.579	14.4
Rxn #55	AnalytiCon Plate #20	D10	50	0.487	0.0641	0.579	17.9
Rxn #55	AnalytiCon Plate #20	E10	50	0.565	0.0641	0.579	2.7
Rxn #55	AnalytiCon Plate #20	F10	50	0.559	0.0641	0.579	3.9
Rxn #55	AnalytiCon Plate #20	G10	50	0.553	0.0641	0.579	5.0
Rxn #55	AnalytiCon Plate #20	H10: FOC	-	0.595	0.0641	0.579	-3.1
Rxn #55	AnalytiCon Plate #20	A11: NFC	-	0.086	0.0641	0.579	95.7
Rxn #55	AnalytiCon Plate #20	B11	50	0.516	0.0641	0.579	12.2
Rxn #55	AnalytiCon Plate #20	C11	50	0.485	0.0641	0.579	18.3
Rxn #55	AnalytiCon Plate #20	D11	50	0.565	0.0641	0.579	2.7
Rxn #55	AnalytiCon Plate #20	E11	50	0.549	0.0641	0.579	5.8
Rxn #55	AnalytiCon Plate #20	F11	50	0.517	0.0641	0.579	12.0
Rxn #55	AnalytiCon Plate #20	G11	50	0.552	0.0641	0.579	5.2
Rxn #55	AnalytiCon Plate #20	H11: FOC	-	0.553	0.0641	0.579	5.0
Rxn #55	AnalytiCon Plate #20	A12: NFC	-	0.059	0.0641	0.579	101.0
Rxn #55	AnalytiCon Plate #20	H12: FOC	-	0.537	0.0641	0.579	8.2

AnalytiCon: Phytochemicals from MEGx library (AnalytiCon Discovery GmbH, Potsdam, Germany) were selected and purchased by Amway Corp.

KHKC: ketohexokinase isoform C. FOC: fructose only control. NFC: no fructose control. OD: optical density.