Supplementary Information

Effect of silymarin and quercetin in miniaturized scaffold in Wistar rats against non–alcoholic fatty liver disease

Jaisheela Marry Stephen Robert[1,3], Muthukumar Serva Peddha[2,3] and Alok Kumar Srivastava[1,3*]

[1]Department of Food Safety and Analytical Quality Control Laboratory, CSIR-Central Food Technological Research Institute, Mysuru 570 020, Karnataka, India.

[2]Department of Biochemistry, CSIR- Central Food Technological Research Institute, Mysuru 570 020, Karnataka, India.

[3]Academy of Scientific and Innovative Research (AcSIR), Ghaziabad, 201002, India.

*Corresponding author:

Alok Kumar Srivastava,

Chief Scientist,

Department of Food Safety and Analytical Quality Control Laboratory,

CSIR- Central Food Technological Research Institute,

Mysuru 570 020, Karnataka, India.

Phone: 91-821-2514972

Fax: 91-821-2517233

Email: aksrivastava@cftri.res.in

Table S1. The miniaturised scaffold efficiency of quercetin and silymarin with different biopolymers.

Sample name	Quercetin Recovery (%)	Amount of silymarin constituents (mg/g)					
		Silybin A	**Silybin B**	**Isosilybin A**	**Isosilybin B**	**silychristin**	**silydianin**
SQBC	98.84±0.57[a]	2.27±0.01[a]	9.15±0.62[a]	9.90±0.53[a]	4.99±0.23[a]	4.67±0.21[a]	7.50±0.67[a]
SQMD	97.78±0.42[b]	2.15±0.01[b]	6.83±0.73[c]	8.16±0.61[b]	3.51±0.17[b]	4.31±0.41[a]	3.475±0.82[c]
SQC	96.97±0.58[c]	2.18±0.01[b]	7.62±0.80[b]	7.90±0.42[b]	2.71±0.52[c]	3.36±0.62[b]	5.96±0.53[b]
SQP	97.20±0.48[b]	1.91±0.15[b]	8.31±0.56 [b]	8.53±0.31[b]	3.18±0.34[b]	3.28±0.45[b]	2.47±0.28[c]
SQWP	96.20±0.66[c]	1.75±0.12[b]	6.57±0.59[c]	6.30±0.45[c]	2.84±0.08[b]	3.49±0.52[b]	4.66±0.30[b]
SQGA	96.17±0.70[c]	1.80±0.12[b]	7.42±0.74[b]	7.97±0.64[b]	4.01±0.35[a]	3.60±0.38[b]	6.89±0.43[a]

SQBC = Silymarin and quercetin with β-cyclodextrin, **SQMD** = Silymarin and quercetin with maltodextrin, **SQC** = Silymarin and quercetin with cellulose, **SQP** = Silymarin and quercetin with pectin, **SQWP** = Silymarin and quercetin with whey protein and **SQGA** = Silymarin and quercetin with gum arabic. Results are expressed as mean ±SEM of the measurements (n = 6 animal/group). Different subscripts following mean values within a row indicate significantly different groups in Duncan's multiple comparison test with $p < 0.05$.

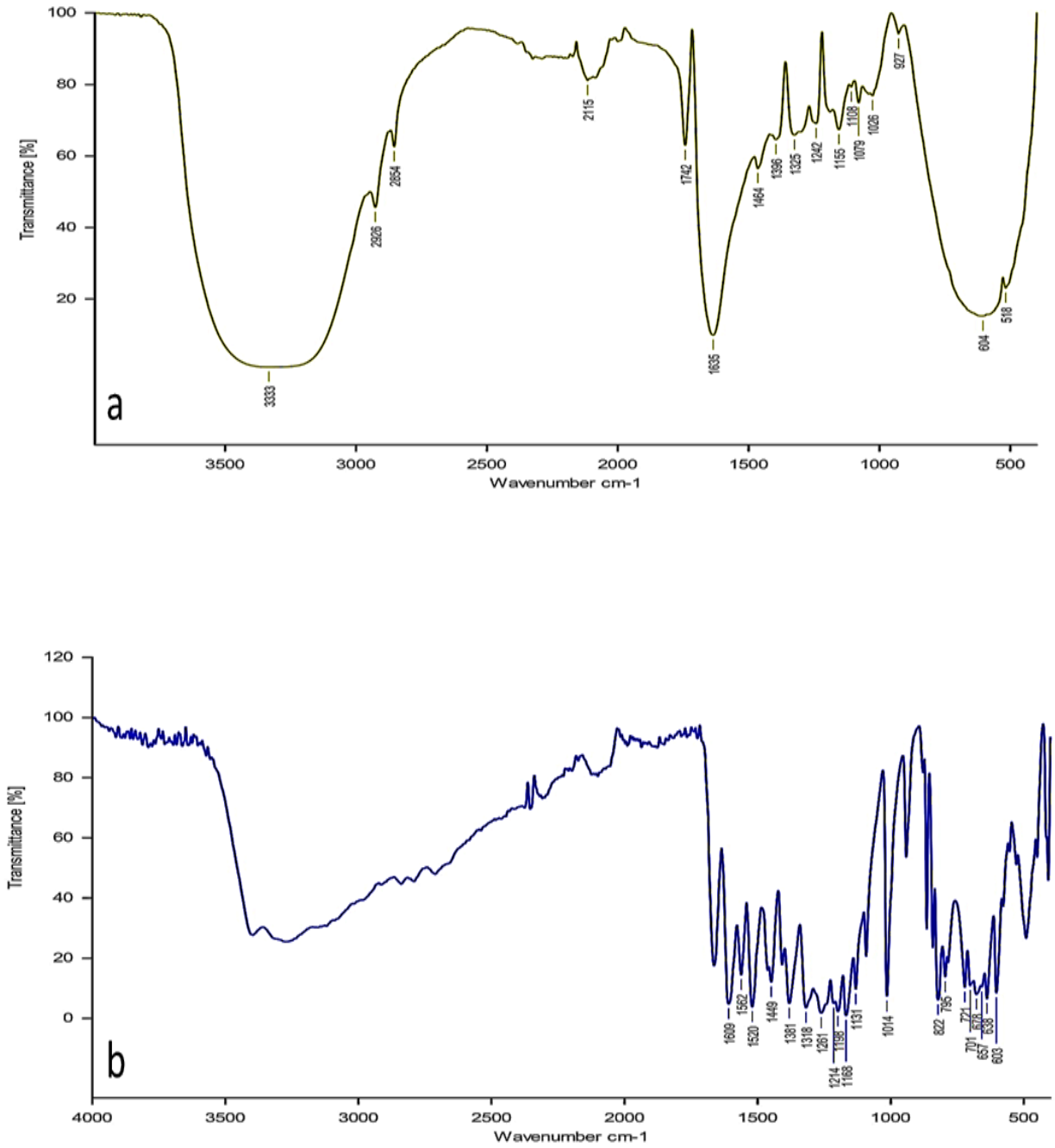

Figure S1. FTIR spectra of **(a)** Silymarin **(b)** Quercetin