SUPPLEMENTARY MATERIAL

Model development for predicting in vitro bio-capacity of green rooibos extract based on composition for application as screening tool in quality control

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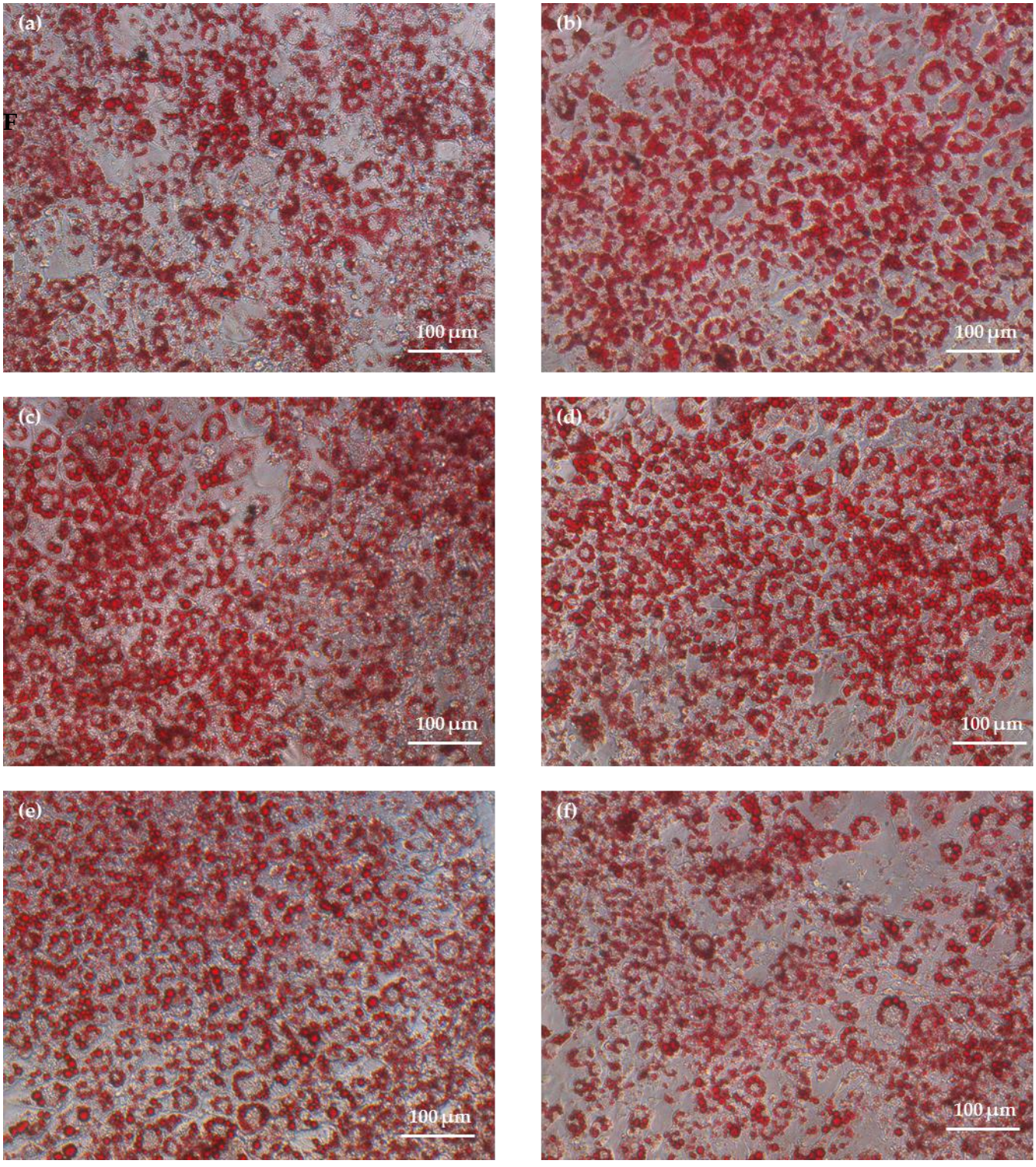

Fig A.1. Oil Red O stained 3T3-L1 adipocytes demonstrating lipid accumulation**.** Lipid accumulation was determined after a 4-hour treatment period with (a) Control (0.01 % DMSO), (b) 1 µM Insulin, (c) 10 µg/mL GRE-SB1, and 10 µg/mL of the (d) GRE-80 (e) GRE-60 and (f) GRE-W from a representative plant material sample (batch 4). Photomicrographs were taken using ×400 magnification. *Abbreviations*: GRE-60, 60% ethanol green rooibos extract; GRE-80, 80% ethanol green rooibos extract; GRE-SB1, reference green rooibos extract; GRE-W, aqueous green rooibos extract.

Table A.1

Pearson correlation coefficients and *p*-values for correlations of bioactivity with the flavonoid and PPAG content of extracts (bold values indicates $p < 0.05$).

Compounds	C2C12 GU		C3A GU		3T3-L1 LA	
	r	*p*	*r*	*p*	*r*	*p*
Aspalathin	0.284	0.121	0.168	0.367	-0.076	0.683
Nothofagin	0.292	0.111	0.190	0.305	0.066	0.722
Isoorientin	**0.515**	**0.003**	0.262	0.155	0.302	0.098
Orientin	**0.577**	**0.001**	0.341	0.060	0.250	0.175
Bioquercetin	-0.016	0.934	0.139	0.456	-0.153	0.410
Vitexin	**0.487**	**0.005**	0.133	0.476	0.228	0.218
Hyperoside	0.034	0.856	0.276	0.133	-0.082	0.662
Rutin	0.052	0.780	-0.025	0.892	-0.001	0.997
Isovitexin	0.349	0.054	0.312	0.087	0.022	0.906
Isoquercitrin	-0.027	0.886	0.201	0.279	-0.107	0.566
Luteoloside	-0.085	0.648	-0.141	0.451	-0.331	0.069
PPAG	0.138	0.458	-0.245	0.185	-0.005	0.980

Abbreviations: 3T3-L1 LA, lipid accumulation in 3T3-L1 cells; C2C12 GU, glucose uptake in C2C12 cells; C3A GU, glucose uptake in C3A cells; PPAG, *Z*-2-(β-D-glucopyranosyloxy)-3-phenylpropenoic acid.

Table A.2

P_{app} values for aspalathin from the different GREs standardised to 150 µM aspalathin equivalent concentrations.

Sample	Batch no	P_{app} values (cm/s) × 10^{-06} ± SD
GRE-SB1		1.27 ± 0.64
GRE-80	5	0.65 ± 0.43
GRE-60	5	0.84 ± 0.57
GRE-W	5	0.85 ± 0.29

Results are from three independent experiments done in triplicate (n = 9) and are expressed as the mean ± SD.

Abbreviations: GRE-60, 60% ethanol green rooibos extract; GRE-80, 80% ethanol green rooibos extract; GRE-SB1, reference green rooibos extract; GRE-W, aqueous green rooibos extract.