

DRAWINGS

Fig. 1

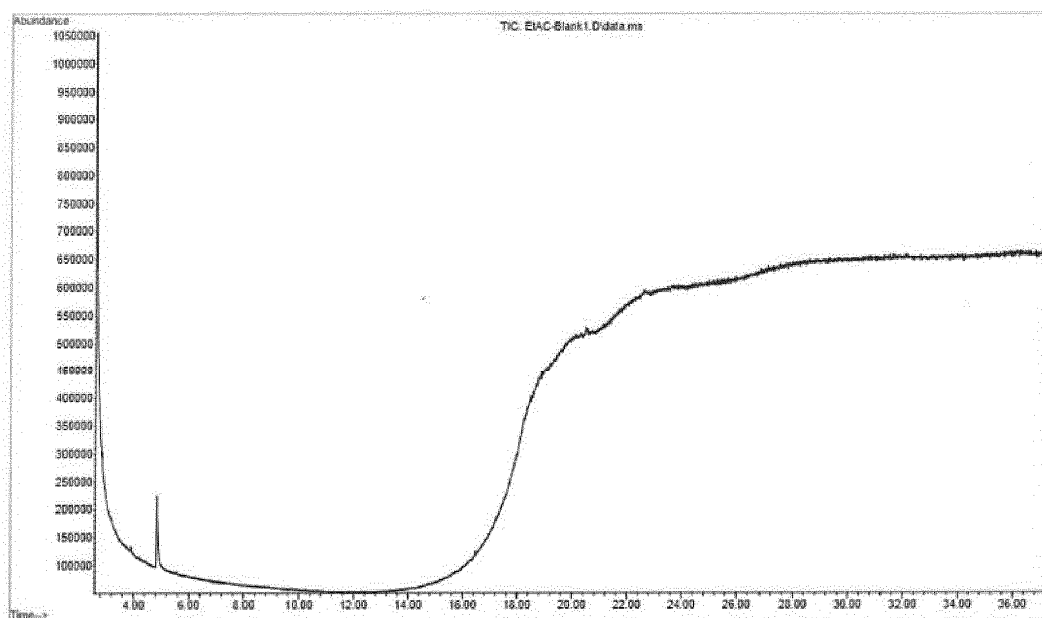


Fig. 2

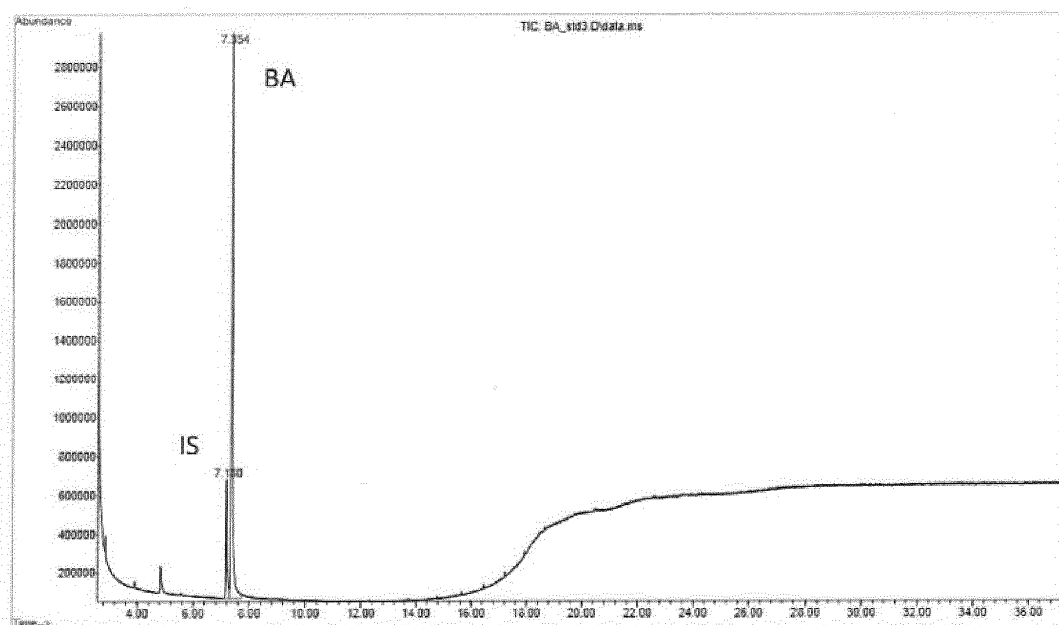


Fig. 3

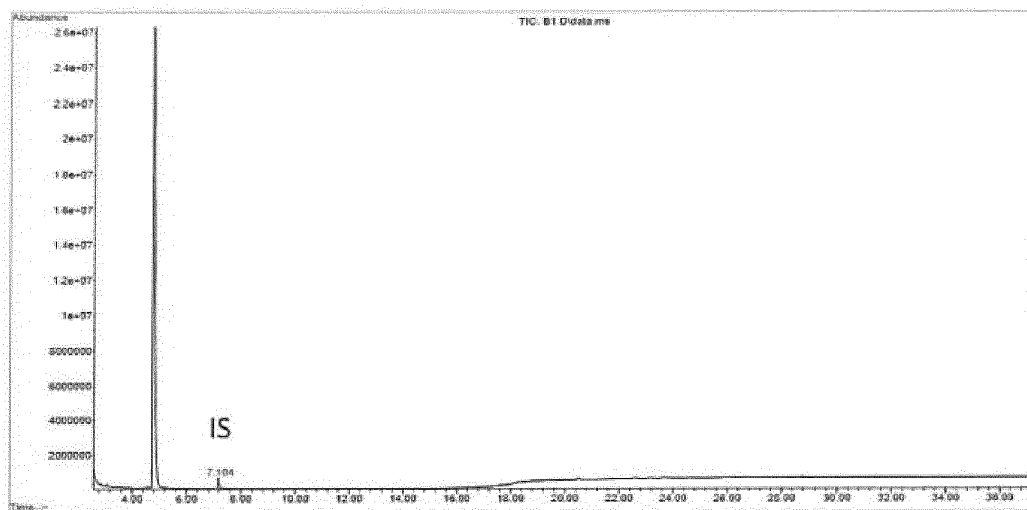


Fig. 4A

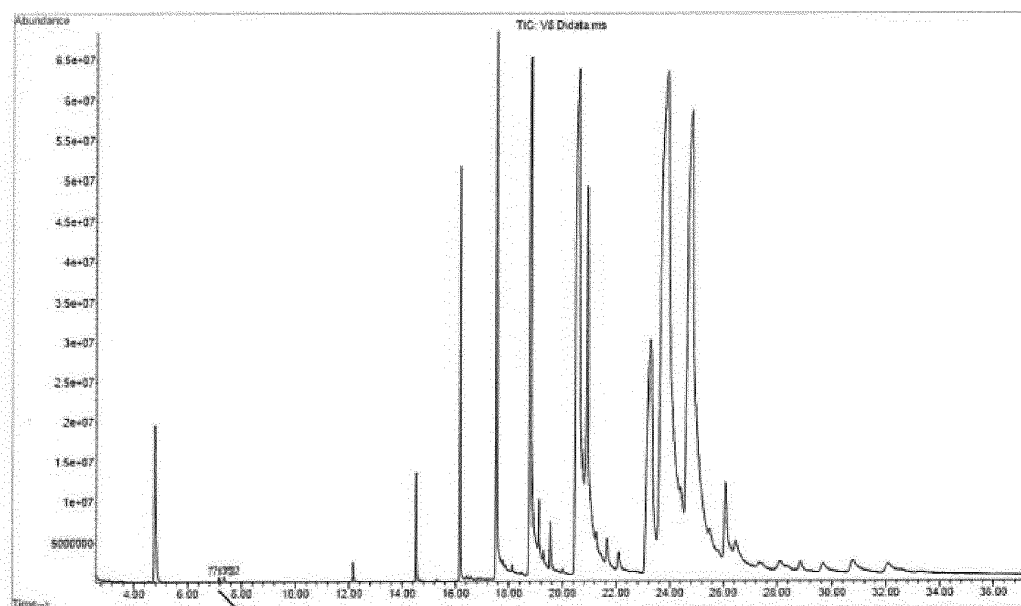


Fig. 4B

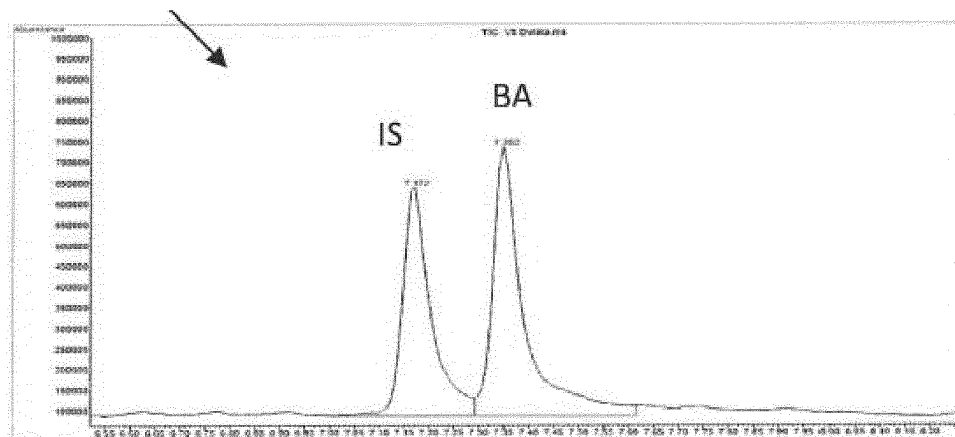
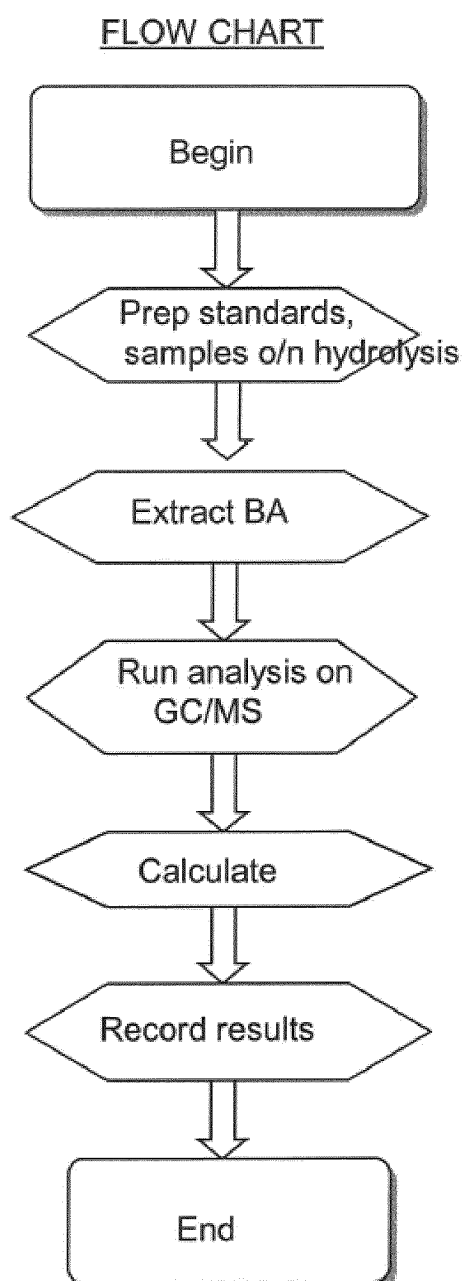


Fig. 5

Sequence Table									
New Sample(s) X Tools									
Name	Var	Method Path	Method File	Data Path	Data File	Type	L	D	Y...
1 BAC-Blank	1	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank	Blank	1		
2 BAC-Blank	1	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank1	Blank	1		
3 Std1	2	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BA_std1	Cal	1		kg/ml
4 Std2	3	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BA_std2	Cal	1		10ug/ml
5 Std3	4	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BA_std3	Cal	1		50ug/ml
6 Std4	5	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BA_std4	Cal	1		100ug/ml
7 Std5	6	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BA_std5	Cal	1		150ug/ml
8 BAC-Blank	1	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank2	Blank	1		
9 Sample 1	7	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	Sample 1	Sample	1		
10 BAC-Blank	1	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank3	Blank	1		
11 Sample 2	8	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	Sample 2	Sample	1		
12 BAC-Blank	1	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank4	Blank	1		
13 Sample 3	9	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	Sample 3	Sample	1		
14 BAC-Blank	1	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank5	Blank	1		
15 Sample 4	10	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	Sample 4	Sample	1		
16 BAC-Blank	1	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank6	Blank	1		
17 Sample 5	11	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	Sample 5	Sample	1		
18 BAC-Blank	1	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank7	Blank	1		
19 Sample 6	12	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	Sample 6	Sample	1		
20 BAC-Blank	13	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank8	Blank	1		
21 Std1 check	4	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BA_std1a	Cal	1		50ug/ml
22 BAC-Blank	13	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank9	Blank	1		
23 Sample 7	14	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	Sample 7	Sample	1		
24 BAC-Blank	13	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank10	Blank	1		
25 Sample 8	15	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	Sample 8	Sample	1		
26 BAC-Blank	13	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank11	Blank	1		
27 Sample 9	15	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	Sample 9	Sample	1		
28 BAC-Blank	13	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank12	Blank	1		
29 Sample 10	15	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	Sample 10	Sample	1		
30 BAC-Blank	13	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank13	Blank	1		
31 Sample 11	15	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	Sample 11	Sample	1		
32 BAC-Blank	13	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank14	Blank	1		
33 Sample 12	15	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	Sample 12	Sample	1		
34 BAC-Blank	13	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank15	Blank	1		
35 Std1 check	18	D:\MassHunter\GCMS1\methods	SCFA_MUN_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BA_std1END	Cal	1		50ug/ml
36 BAC-Blank	13	D:\MassHunter\GCMS1\methods	SCFA_Blank_MS.M	D:\MassHunter\GCMS1\data\Sept 2 2016	BAC-Blank16	Blank	1		

Fig. 6



I. Lipolysis

Glycerol release – plate 1

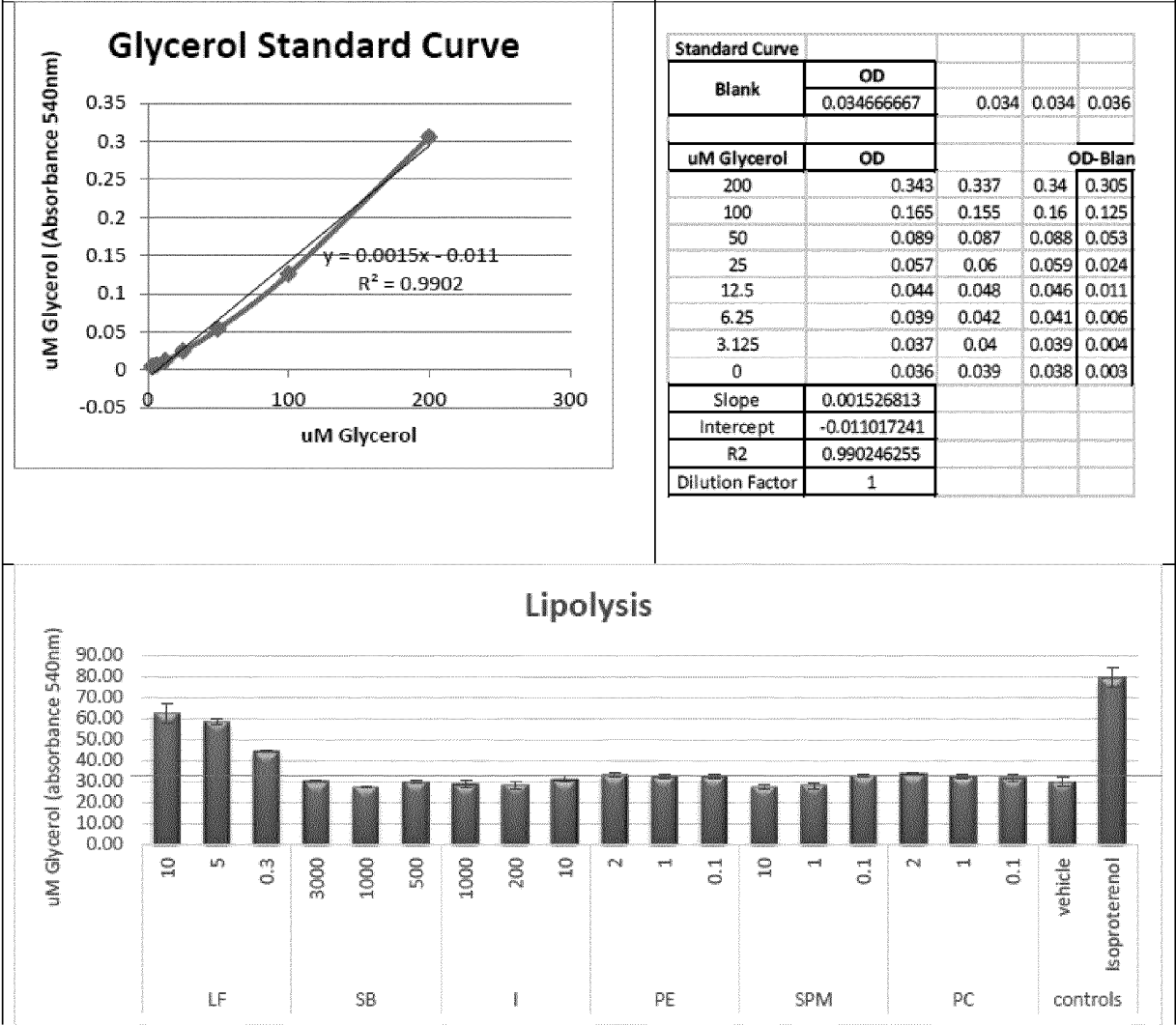


Fig. 7 - Lipolysis

Plate 1															
Lypolysis															
Compound	Concentration (mM)	OD	OD	OD	OD-Blank	OD-Blank	OD-Blank	uM Glycerol	uM Glycerol	uM Glycerol	Ave uM Glycerol	St Dev	sem	ttest	
LF	10	0.133	0.112	0.112	0.098333	0.077333	0.077333	71.62	57.87	57.87	62.45	7.94	4.58	0.00290468	
	5	0.117	0.111	0.11	0.082333	0.076333	0.075333	61.14	57.21	56.56	58.30	2.48	1.43	0.00035772	
	0.3	0.091	0.091	0.093	0.056333	0.056333	0.058333	44.11	44.11	45.42	44.55	0.76	0.44	0.00230802	
SB	3000	0.071	0.07	0.069	0.036333	0.035333	0.034333	31.01	30.36	29.70	30.36	0.65	0.38	0.77473781	
	1000	0.066	0.065	0.065	0.031333	0.030333	0.030333	27.74	27.08	27.08	27.30	0.38	0.22	0.31993774	
	500	0.07	0.067	0.07	0.035333	0.032333	0.035333	30.36	28.39	30.36	29.70	1.13	0.65	1	
I	1000	0.071	0.063	0.069	0.036333	0.028333	0.034333	31.01	25.77	29.70	28.83	2.73	1.57	0.7564297	
	200	0.069	0.062	0.069	0.034333	0.027333	0.034333	29.70	25.12	29.70	28.17	2.65	1.53	0.58847608	
	10	0.07	0.068	0.075	0.035333	0.033333	0.040333	30.36	29.05	33.63	31.01	2.36	1.36	0.62909479	
PE	2	0.077	0.071	0.075	0.042333	0.036333	0.040333	34.94	31.01	33.63	33.20	2.00	1.16	0.21948026	
	1	0.071	0.072	0.076	0.036333	0.037333	0.041333	31.01	31.67	34.29	32.32	1.73	1.00	0.32394083	
	0.1	0.077	0.071	0.071	0.042333	0.036333	0.036333	34.94	31.01	31.01	32.32	2.27	1.31	0.35030724	
SPM	10	0.069	0.065	0.064	0.034333	0.030333	0.029333	29.70	27.08	26.43	27.74	1.73	1.00	0.44672313	
	1	0.07	0.064	0.065	0.035333	0.029333	0.030333	30.36	26.43	27.08	27.96	2.11	1.22	0.51222526	
	0.1	0.076	0.072	0.073	0.041333	0.037333	0.038333	34.29	31.67	32.32	32.76	1.36	0.79	0.24549204	
PC	2	0.074	0.074	0.077	0.039333	0.039333	0.042333	32.98	32.98	34.94	33.63	1.13	0.65	0.33006565	
	1	0.076	0.073	0.07	0.041333	0.038333	0.035333	34.29	32.32	30.36	32.32	1.96	1.13	0.33485228	
	0.1	0.077	0.07	0.069	0.042333	0.035333	0.034333	34.94	30.36	29.70	31.67	2.85	1.65	0.50318941	
controls	vehicle	0.07	0.063	0.074	0.035333	0.028333	0.039333	30.36	25.77	32.98	29.70	3.65	2.11	1	
	isoproterenol	0.141	0.158	0.135	0.106333	0.123333	0.100333	76.86	87.99	72.93	79.26	7.81	4.51	0.00057199	
	blank	0.039	0.037	0.038	0.004333	0.002333	0.003333	10.05	8.74	9.40	9.40	0.65	0.38	0.00068753	

Fig. 8 - Lipolysis

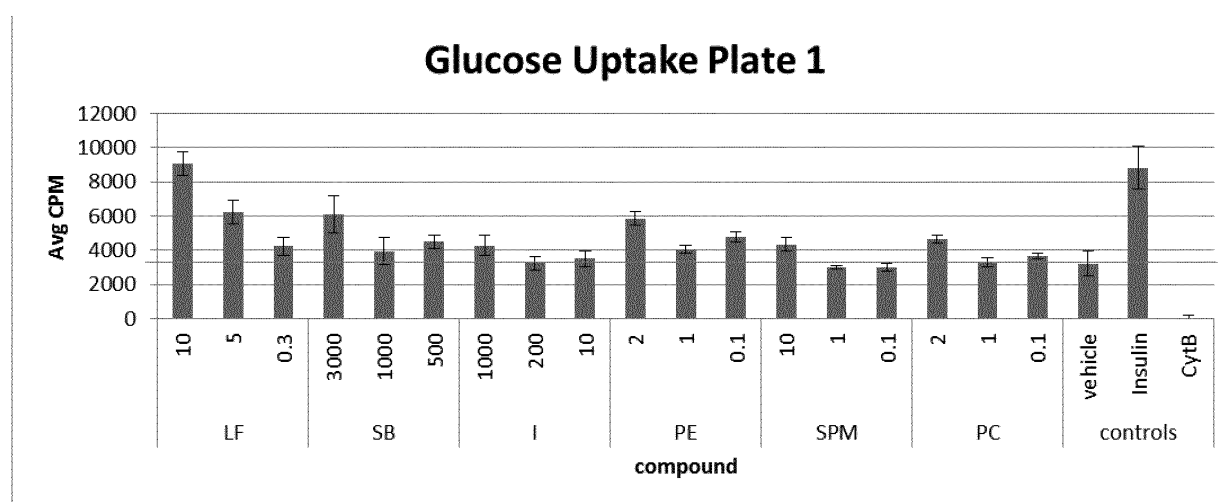


Fig. 9 – Glucose Uptake Assay

Plate 1										
Non Specific Uptake (blank)										
	Concentration	CPM	CPM	CPM	Avg CPM	SD				
Cytochalasin B	10µM	819	946	1186	984	186.37686				
Compound	Concentration (mM)	CPM	CPM	CPM	CPM-blank	CPM-blank	CPM-blank	Avg CPM-blank	SD	ttest
LF	10	10022	9398	10743	9038	8414	9759	9071	673.0827	0.000523
	5	6456	7312	7836	5472	6328	6852	6218	696.6242	0.006829
	0.3	4691	5203	5765	3707	4219	4781	4236	537.1939	0.125803
SB	3000	5893	7438	7987	4909	6454	7003	6122	1085.761	0.018561
	1000	4227	4820	5766	3243	3836	4782	3954	776.218	0.301831
	500	5049	5687	5746	4065	4703	4762	4510	386.5087	0.054569
I	1000	4568	5614	5605	3584	4630	4621	4279	601.3271	0.126123
	200	3777	4497	4406	2793	3513	3422	3243	392.0718	0.971313
	10	3980	4624	4888	2996	3640	3904	3514	467.0646	0.595009
PE	2	7100	7023	6368	6116	6039	5384	5847	402.2391	0.005543
	1	5004	4865	5300	4020	3881	4316	4073	222.1719	0.127091
	0.1	5410	5854	6017	4426	4870	5033	4777	314.1534	0.027873
SPM	10	5432	5688	4879	4448	4704	3895	4349	413.4864	0.081292
	1	3924	4071	3877	2940	3087	2893	2974	101.2044	0.587694
	0.1	3877	4271	3789	2893	3287	2805	2995	256.6788	0.635376
PC	2	5486	5495	5938	4502	4511	4954	4656	258.4034	0.03304
	1	4043	4526	4255	3059	3542	3271	3291	242.0998	0.888683
	0.1	4744	4487	4758	3760	3503	3774	3679	152.5811	0.351389
controls	vehicle	5053	3786	3786	4069	2802	2802	3225	731.5028	1
	Insulin	11252	8971	9239	10268	7987	8255	8837	1246.793	0.002547
	CytB	819	946	1186	-165	-38	202	0	186.3769	0.00178

Fig. 10 – Glucose Uptake Assay

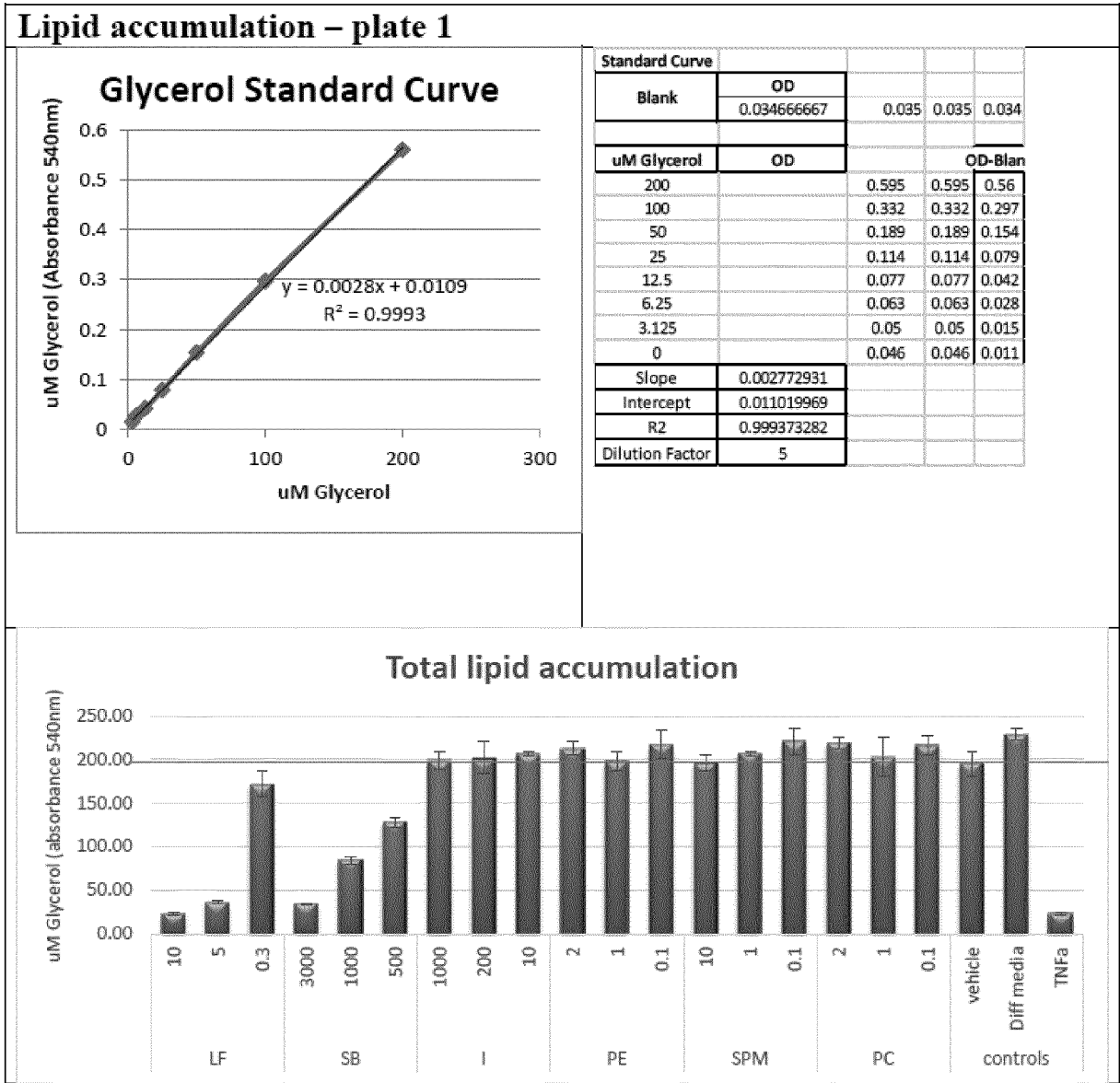


Fig. 11 – Adipogenesis Assay (Total Triglyceride)

Plate 1														
lipid accumulation														
Compound	Concentration (mM)	OD	OD	OD	OD-Blank	OD-Blank	OD-Blank	uM Glycerol	uM Glycerol	uM Glycerol	Ave uM Glycerol	St Dev	sem	ttest
DHA/ARA	10	0.06	0.056	0.057	0.025333	0.021333	0.022333	25.81	18.60	24.36	22.92	3.81	2.20	0.00025396
	5	0.063	0.062	0.065	0.028333	0.027333	0.030333	35.18	33.38	38.79	35.78	2.76	1.59	0.00033608
	0.3	0.155	0.129	0.133	0.120333	0.094333	0.098333	201.14	154.24	161.46	172.28	25.26	14.58	0.31960045
LF+PE+SPM+PC +DHA/ARA	3000	0.063	0.062	0.062	0.028333	0.027333	0.027333	35.18	33.38	33.38	33.98	1.04	0.60	0.00031469
	1000	0.095	0.087	0.089	0.060333	0.052333	0.054333	92.91	78.48	82.08	84.49	7.51	4.34	0.00159714
	500	0.121	0.111	0.112	0.086333	0.076333	0.077333	139.81	121.77	123.57	128.39	9.94	5.74	0.01127175
SB+I	1000	0.163	0.155	0.144	0.128333	0.120333	0.109333	215.58	201.14	181.30	199.34	17.21	9.94	0.81727142
	200	0.176	0.143	0.147	0.141333	0.108333	0.112333	239.03	179.50	186.71	201.75	32.49	18.76	0.79082846
	10	0.16	0.158	0.155	0.125333	0.123333	0.120333	210.16	206.56	201.14	205.95	4.54	2.62	0.48594034
SB+I+DHA/ARA	2	0.162	0.168	0.155	0.127333	0.133333	0.120333	213.77	224.60	201.14	213.17	11.74	6.78	0.30744759
	1	0.165	0.146	0.148	0.130333	0.111333	0.113333	219.18	184.91	188.52	197.54	18.83	10.87	0.89803659
	0.1	0.182	0.151	0.159	0.147333	0.116333	0.124333	249.85	193.93	208.36	217.38	29.03	16.76	0.36428172
PE+SPM+PC	10	0.16	0.143	0.154	0.125333	0.108333	0.119333	210.16	179.50	199.34	196.33	15.55	8.98	0.94546958
	1	0.158	0.156	0.161	0.123333	0.121333	0.126333	206.56	202.95	211.97	207.16	4.54	2.62	0.44220587
	0.1	0.172	0.176	0.15	0.137333	0.141333	0.115333	231.81	239.03	192.12	220.99	25.26	14.58	0.26819402
LF+PE+SPM+PC	2	0.172	0.162	0.16	0.137333	0.127333	0.125333	231.81	213.77	210.16	218.58	11.60	6.70	0.8566019
	1	0.176	0.159	0.133	0.141333	0.124333	0.098333	239.03	208.36	161.46	202.95	39.07	22.56	0.78251122
	0.1	0.158	0.157	0.175	0.123333	0.122333	0.140333	206.56	204.75	237.22	216.18	18.25	10.54	0.29346683
controls	vehicle	0.163	0.155	0.137	0.128333	0.120333	0.102333	215.58	201.14	168.67	195.13	24.02	13.87	1
	Diff media	0.169	0.165	0.177	0.134333	0.130333	0.142333	226.40	219.18	240.83	228.80	11.02	6.36	0.09196253
	TNFi	0.058	0.056	0.055	0.023333	0.021333	0.020333	26.16	22.55	20.75	23.15	2.76	1.59	0.00024947

Fig. 12 – Adipogenesis Assay (Total Triglyceride)

Plate 1	FABP4	PPAR γ	CEBPa
10uM LF	0.0000	0.0009	0.8540
5uM LF	0.0000	0.0020	1.9353
0.3uM LF	0.9946	1.7802	3.5033
3mM SB	0.2560	0.4202	0.4508
1mM SB	0.4150	0.5394	0.8043
0.5mM SB	0.7154	0.8783	1.2004
1000uM I	1.0189	0.9677	1.2375
200uM I	1.2759	1.2985	1.4298
10uM I	0.9458	1.4434	1.1686
2uM PE	1.1711	1.5831	1.0032
1uM PE	1.0693	1.5498	1.2447
0.1uM PE	1.3323	1.6934	1.3553
10uM SPM	1.4145	1.3073	1.6378
1uM SPM	1.1841	1.2886	1.5716
0.1uM SPM	1.9401	1.9854	1.7811
2uM PC	0.9817	1.5826	0.9844
1uM PC	1.1369	1.4934	1.1912
0.1uM PC	1.2350	1.5566	1.2314
Vehicle	1.0630	1.0532	1.0268
Diff Media	0.9021	1.3599	1.0650

Adipogenesis Assay – Gene expression

Fig. 13 – Summary Table, FABP4, PPAR γ and C/EBPa

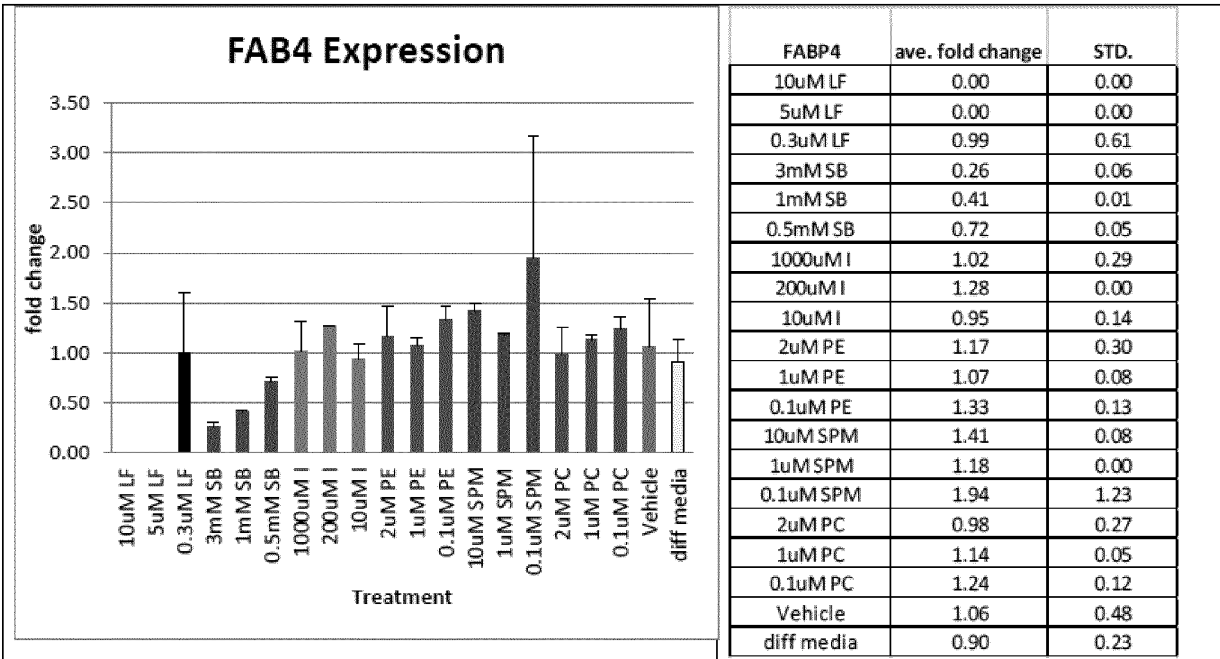


Fig. 14 – FABP4 Expression

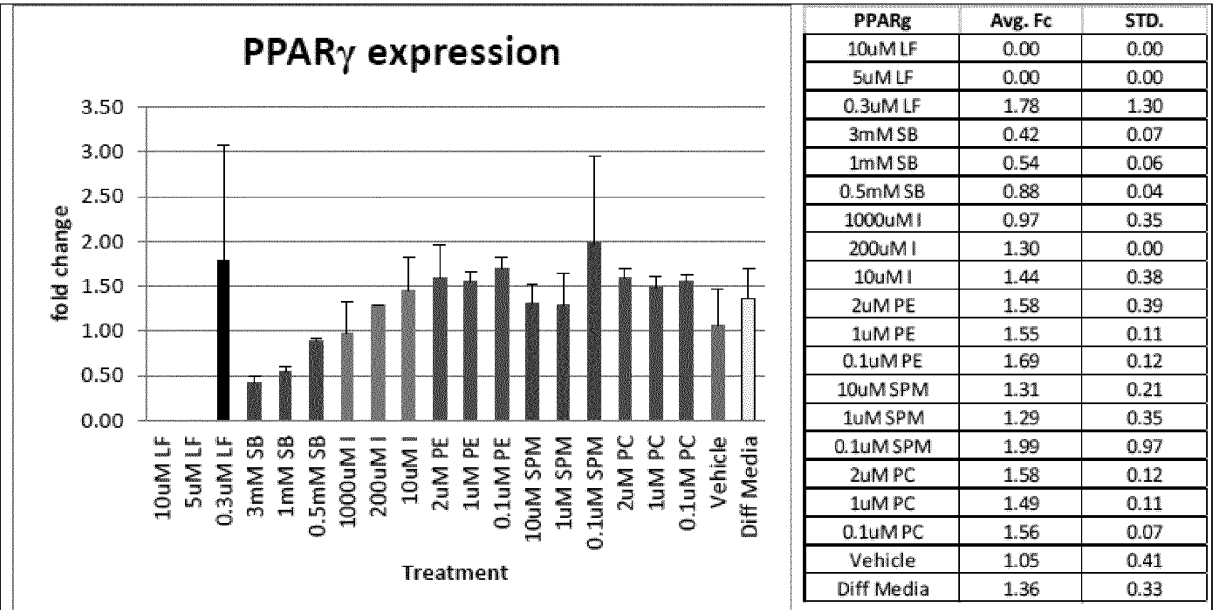


Fig. 15 – PPAR γ Expression

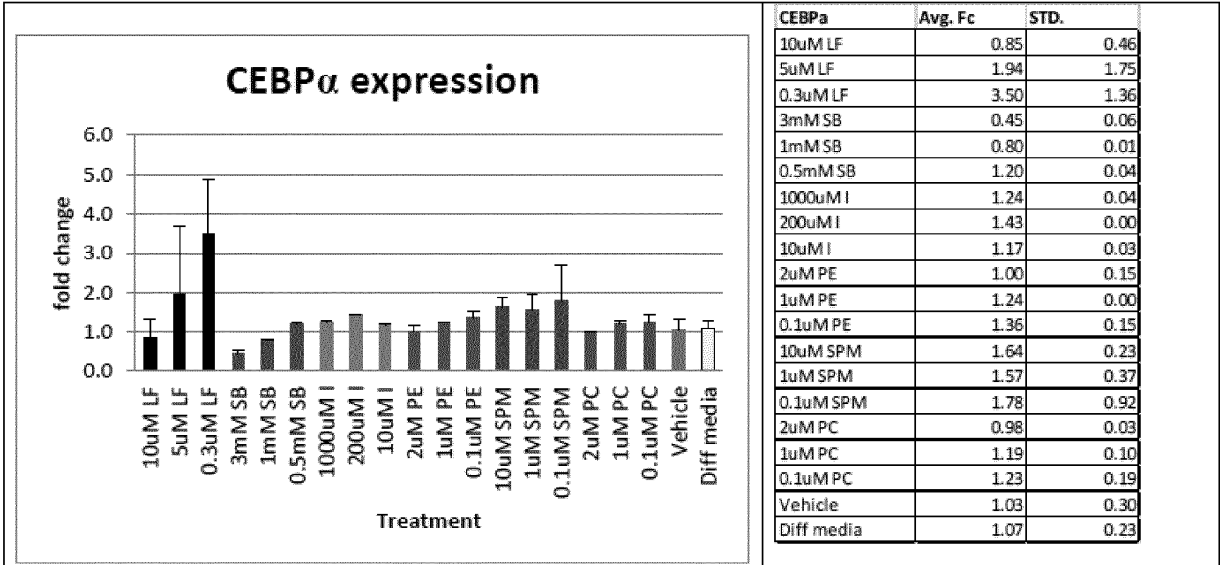


Fig. 16 – CEBP α expression.