

Supplementary Table 2

Variable clusters Bacterial Cells					
Sample Type	Cluster	Members	RSquare with Own Cluster	RSquare with Next Closest	1-RSquare Ratio
Bacterial Cells	1	9_10-DiHOME	0.906626	0.512973	0.191722
Bacterial Cells	1	15_16-DiHODE	0.944289	0.710006	0.19211
Bacterial Cells	1	LEA	0.883	0.511666	0.23959
Bacterial Cells	1	aLEA	0.902029	0.675291	0.301718
Bacterial Cells	1	9_10-DiHODE	0.86691	0.64953	0.379747
Bacterial Cells	1	9(10)-EpOME	0.805226	0.74757	0.771597
Bacterial Cells	1	19(20)-EpDPE	0.159232	0.095182	0.929213
Bacterial Cells	2	PEA	0.967285	0.615201	0.085018
Bacterial Cells	2	POEA Screen	0.96594	0.603676	0.085939
Bacterial Cells	2	OEA	0.937456	0.657869	0.182808
Bacterial Cells	2	NO-Gly	0.890425	0.497788	0.218184
Bacterial Cells	2	EPEA Screen	0.866851	0.58634	0.32188
Bacterial Cells	2	11-HETE	0.754894	0.43594	0.434539
Bacterial Cells	2	DGLEA	0.864874	0.719162	0.481154
Bacterial Cells	2	5-HETE	0.758132	0.595025	0.597241
Bacterial Cells	2	NA-Gly	0.492387	0.207715	0.640695
Bacterial Cells	3	6-keto PGF1a	0.976571	0.437839	0.041677
Bacterial Cells	3	9_12_13-TriHOME	0.965441	0.400347	0.057632
Bacterial Cells	3	PGF2a	0.938897	0.407262	0.103086
Bacterial Cells	3	F2 Isoprostanes	0.869661	0.369056	0.206577
Bacterial Cells	3	PGF3a	0.874899	0.442648	0.224455
Bacterial Cells	3	13-HOTE	0.655822	0.457603	0.63455
Bacterial Cells	3	13-HODE	0.841626	0.75265	0.640284
Bacterial Cells	3	20-HETE	0.273549	0.20045	0.908575
Bacterial Cells	4	Protectin DX	0.725938	0.234916	0.358211
Bacterial Cells	4	17_18-DiHETE	0.751609	0.344238	0.378783
Bacterial Cells	4	15-HETE	0.667245	0.281412	0.463068
Bacterial Cells	4	9-HEPE	0.349149	0.216536	0.830736
Bacterial Cells	5	8(9)-EpETrE	0.786717	0.27898	0.295808
Bacterial Cells	5	TXB2	0.643071	0.202411	0.44751
Bacterial Cells	5	14(15)-EpETrE	0.660693	0.262271	0.459934
Bacterial Cells	5	9-HETE	0.5677	0.356394	0.671684
Bacterial Cells	5	8-HETE	0.484255	0.477413	0.986908
Bacterial Cells	6	AA (Rel Abs)	0.83082	0.421447	0.292419
Bacterial Cells	6	11_12-DiHETrE	0.856814	0.586489	0.34627
Bacterial Cells	6	14_15-DiHETrE	0.764845	0.484742	0.456383
Bacterial Cells	6	13-KODE	0.60674	0.294281	0.557247

Bacterial Cells	6	8_9-DiHETrE	0.596902	0.420374	0.695446
Bacterial Cells	7	1-OG	0.819295	0.331775	0.270426
Bacterial Cells	7	2-LG	0.808608	0.33538	0.287971
Bacterial Cells	7	9-HODE	0.86537	0.603589	0.339623
Bacterial Cells	7	2-OG	0.579798	0.221043	0.539442
Bacterial Cells	7	9-HOTE	0.616848	0.317756	0.561605
Bacterial Cells	7	12_13-DiHOME	0.670782	0.571468	0.768245
Bacterial Cells	8	14-HDoHE	0.822472	0.208579	0.224316
Bacterial Cells	8	2-AG	0.653198	0.127736	0.397588
Bacterial Cells	8	11(12)-EpETrE	0.647766	0.189471	0.434573
Bacterial Cells	8	12_13-DiHODE	0.6056	0.119629	0.447993
Bacterial Cells	9	4-HDoHE	0.699046	0.270543	0.412572
Bacterial Cells	9	15-KETE	0.638472	0.336234	0.544663
Bacterial Cells	9	15-HEPE	0.582673	0.253944	0.559377
Bacterial Cells	9	5-KETE	0.561807	0.267774	0.59844
Bacterial Cells	9	17-HDoHE	0.500923	0.194221	0.619373
Bacterial Cells	9	DHEA	0.394053	0.19062	0.748656
Bacterial Cells	10	ALA (Rel Abs)	0.933235	0.605091	0.169063
Bacterial Cells	10	15(16)-EpODE	0.920912	0.573918	0.185618
Bacterial Cells	10	12(13)-EpODE	0.828629	0.50936	0.34928
Bacterial Cells	10	LA (Rel Abs)	0.839716	0.618282	0.419902
Bacterial Cells	10	12(13)-EpOME	0.899342	0.780397	0.458361
Bacterial Cells	10	9-KODE	0.726864	0.509641	0.557013
Bacterial Cells	10	9(10)-EpODE	0.754616	0.617225	0.641066
Bacterial Cells	10	14_15-DiHETE	0.246285	0.119544	0.856051
Bacterial Cells	10	DHA (Rel Abs)	0.16516	0.095646	0.923134
Bacterial Cells	11	AEA	0.83864	0.638085	0.445851
Bacterial Cells	11	12-HETE	0.748881	0.455765	0.461416
Bacterial Cells	11	SEA	0.703941	0.416442	0.507334
Bacterial Cells	11	5-HEPE	0.478051	0.224365	0.672931
Bacterial Cells	11	PGD2	0.588396	0.436041	0.729848
Bacterial Cells	12	12(13)-Ep-9-KODE	0.747622	0.33525	0.379659
Bacterial Cells	12	5_6-DiHETrE	0.824166	0.616043	0.457951
Bacterial Cells	12	EPA (Rel Abs)	0.59106	0.200726	0.511639
Bacterial Cells	13	8_15-DiHETE	0.845477	0.336379	0.232848
Bacterial Cells	13	19_20-DiHDoPA	0.81483	0.446656	0.334638
Bacterial Cells	13	12-HEPE	0.726216	0.27345	0.376827

Variable clusters Intestinal Epithelial Cells

Sample Type	Cluster	Members	RSquare with Own Cluster	RSquare with Next Closest	1-RSquare Ratio
Intestinal Epithelial Cells	1	5-HEPE	0.973592681	0.580920145	0.063012618
Intestinal Epithelial Cells	1	17_18-DiHETE	0.920418922	0.504192367	0.160507974
Intestinal Epithelial Cells	1	9-HEPE	0.910420206	0.472688881	0.169880344
Intestinal Epithelial Cells	1	EPA (Rel Abs)	0.918269859	0.683447922	0.258188611
Intestinal Epithelial Cells	1	19_20-DiHDoPA	0.883918694	0.577129028	0.274507624
Intestinal Epithelial Cells	1	14_15-DiHETE	0.840174068	0.464392517	0.29840123
Intestinal Epithelial Cells	1	12-HEPE	0.827879092	0.45918547	0.318262359
Intestinal Epithelial Cells	1	DHEA	0.714554177	0.421073992	0.493060977
Intestinal Epithelial Cells	1	4-HDoHE	0.774757394	0.553496797	0.504459105
Intestinal Epithelial Cells	1	15-HEPE	0.704568915	0.489654665	0.578884659
Intestinal Epithelial Cells	1	EPEA Screen	0.746314609	0.683023127	0.800327761
Intestinal Epithelial Cells	2	9-HETE	0.920886475	0.53239868	0.169190124
Intestinal Epithelial Cells	2	12-HETE	0.913666471	0.499908491	0.172635462
Intestinal Epithelial Cells	2	15-HETE	0.848379218	0.493676426	0.299454321
Intestinal Epithelial Cells	2	8-HETE	0.897372134	0.677974042	0.31869439
Intestinal Epithelial Cells	2	9_12_13-TriHOME	0.729269678	0.363569501	0.425388668
Intestinal Epithelial Cells	2	6-keto PGF1a	0.514380613	0.3541506	0.751908087
Intestinal Epithelial Cells	2	11-HETE	0.697774664	0.638084232	0.835070927
Intestinal Epithelial Cells	3	12_13-DiHOME	0.92397835	0.565286683	0.174877665
Intestinal Epithelial Cells	3	15_16-DiHODE	0.940190106	0.667809971	0.180047227
Intestinal Epithelial Cells	3	12_13-DiHODE	0.900092545	0.551055862	0.222538723
Intestinal Epithelial Cells	3	12(13)-EpODE	0.88326091	0.61066305	0.299840769
Intestinal Epithelial Cells	3	9_10-DiHOME	0.894605269	0.766995243	0.452328667
Intestinal Epithelial Cells	3	aLEA	0.799202813	0.625910959	0.536763083
Intestinal Epithelial Cells	3	12(13)-EpOME	0.789860065	0.649441371	0.599443053
Intestinal Epithelial Cells	3	15(16)-EpODE	0.854805939	0.76723034	0.62376712
Intestinal Epithelial Cells	3	LEA	0.738268597	0.602182321	0.657917979
Intestinal Epithelial Cells	4	2-LG	0.903558791	0.516768019	0.199575385
Intestinal Epithelial Cells	4	ALA (Rel Abs)	0.92140589	0.669282256	0.237647092
Intestinal Epithelial Cells	4	2-OG	0.845113561	0.44494804	0.27904854
Intestinal Epithelial Cells	4	13-KODE	0.78707186	0.47518442	0.405719929
Intestinal Epithelial Cells	4	9(10)-EpODE	0.82395167	0.653292075	0.50777129
Intestinal Epithelial Cells	4	LA (Rel Abs)	0.696772343	0.420333021	0.523106659
Intestinal Epithelial Cells	4	1-OG	0.658206347	0.358051745	0.532431782
Intestinal Epithelial Cells	4	2-AG	0.513708284	0.36883349	0.770465016
Intestinal Epithelial Cells	4	13-HOTE	0.551859274	0.439896989	0.80010412
Intestinal Epithelial Cells	5	11_12-DiHETrE	0.862170325	0.273202148	0.189639629

Intestinal Epithelial Cells	5	8_9-DiHETrE	0.8915705	0.540429558	0.235936626
Intestinal Epithelial Cells	5	14_15-DiHETrE	0.856585924	0.439822754	0.256015532
Intestinal Epithelial Cells	5	5_6-DiHETrE	0.80231571	0.64116354	0.550903581
Intestinal Epithelial Cells	5	DGLEA	0.488604167	0.24999558	0.681857092
Intestinal Epithelial Cells	6	PGF2a	0.949086967	0.173564856	0.061605601
Intestinal Epithelial Cells	6	F2 Isoprostanes	0.907707429	0.169405189	0.111116239
Intestinal Epithelial Cells	6	AEA	0.703267552	0.317742916	0.434927618
Intestinal Epithelial Cells	7	8(9)-EpETrE	0.78916667	0.379216409	0.339624522
Intestinal Epithelial Cells	7	5-HETE	0.684982027	0.357936948	0.490634015
Intestinal Epithelial Cells	7	AA (Rel Abs)	0.700666722	0.439095693	0.533661935
Intestinal Epithelial Cells	7	15-KETE	0.775343535	0.603797871	0.567024881
Intestinal Epithelial Cells	8	DHA (Rel Abs)	0.853382385	0.426468381	0.255639986
Intestinal Epithelial Cells	8	PEA	0.68429204	0.396197787	0.522866518
Intestinal Epithelial Cells	8	NA-Gly	0.662258962	0.386177505	0.550225906
Intestinal Epithelial Cells	8	OEA	0.664043077	0.441453611	0.60148437
Intestinal Epithelial Cells	8	12(13)-Ep-9-KODE	0.453280363	0.268477625	0.747372405
Intestinal Epithelial Cells	8	POEA Screen	0.66787905	0.593420077	0.816865101
Intestinal Epithelial Cells	8	PGF3a	0.533978838	0.456445208	0.857358208
Intestinal Epithelial Cells	9	14-HDoHE	0.856046865	0.49833783	0.286952344
Intestinal Epithelial Cells	9	Protectin DX	0.673559071	0.258378442	0.440171845
Intestinal Epithelial Cells	9	17-HDoHE	0.677931551	0.349408467	0.495039411
Intestinal Epithelial Cells	9	PGD2	0.470643344	0.290228556	0.74581284
Intestinal Epithelial Cells	10	9-HODE	0.95796581	0.711174679	0.145534989
Intestinal Epithelial Cells	10	9-HOTE	0.942714302	0.639758073	0.159020076
Intestinal Epithelial Cells	10	9-KODE	0.926354464	0.657207591	0.214840043
Intestinal Epithelial Cells	10	13-HODE	0.864239634	0.624731115	0.361768246
Intestinal Epithelial Cells	10	9_10-DiHODE	0.887228359	0.754002703	0.458426341
Intestinal Epithelial Cells	10	9(10)-EpOME	0.697638035	0.533761192	0.648513079
Intestinal Epithelial Cells	11	8_15-DiHETE	0.757904236	0.277652896	0.335151568
Intestinal Epithelial Cells	11	TXB2	0.654674685	0.228220005	0.447440096
Intestinal Epithelial Cells	11	20-HETE	0.706767551	0.391847598	0.48216935
Intestinal Epithelial Cells	12	11(12)-EpETrE	0.733281757	0.20105369	0.333837505
Intestinal Epithelial Cells	12	5-KETE	0.648814954	0.277614027	0.486145993
Intestinal Epithelial Cells	12	14(15)-EpETrE	0.538408158	0.224756241	0.595415102
Intestinal Epithelial Cells	12	19(20)-EpDPE	0.395120543	0.152448095	0.713678364
Intestinal Epithelial Cells	13	SEA	0.810286631	0.234359881	0.247783997
Intestinal Epithelial Cells	13	NO-Gly	0.810286631	0.308207058	0.274234322