Table S4 The correlation analysis between L-ZS9-producing metabolites, microbiota diversity and immune factors at the negtive ion mode

Var1	Interraction	Var2	Cor	*P* value
IgG	Positive	*Bifidobacterium adolescentis*	0.8328	0.0028
MDA	Positive	*Clostridium clostridioforme*	0.7128	0.0207
sIgA	Positive	*Gemmiger formicilis*	0.7333	0.0158
IgG	Positive	*Enterococcus cecorum*	0.6687	0.0345
MDA	Negative	*Enterococcus cecorum*	-0.6848	0.0289
sIgA	Positive	*Eubacterium biforme*	0.6970	0.0251
sIgA	Positive	*Ruminococcus torques*	0.6606	0.0376
sIgA	Positive	*Blautia producta*	0.7697	0.0092
T-SOD	Positive	*Cetobacterium somerae*	0.6727	0.0330
sIgA	Positive	*Collinsella stercoris*	0.6485	0.0425
sIgA	Positive	*Faecalibacterium prausnitzii*	0.8424	0.0022
sIgA	Negative	*Prevotella copri*	-0.6606	0.0376
sIgA	Positive	*Coprococcus*	0.6606	0.0376
TNF-α	Positive	*Peptococcus*	0.6485	0.0425
sIgA	Positive	*Slackia*	0.6970	0.0251
T-SOD	Positive	*Anaerobiospirillum*	0.6727	0.0330
MDA	Negative	*Oscillospira*	-0.7091	0.0217
T-SOD	Positive	*Catenibacterium*	0.8283	0.0031
sIgA	Positive	*Gemmiger*	0.7576	0.0111
IgG	Positive	*Enterococcus*	0.6322	0.0498
sIgA	Positive	*Enterococcus*	0.6485	0.0425
MDA	Negative	*Enterococcus*	-0.7697	0.0092
sIgA	Positive	*Dialister*	0.6364	0.0479
sIgA	Positive	*Eubacterium*	0.7697	0.0092
IgG	Positive	*Veillonella*	0.7599	0.0108
sIgA	Positive	*Adlercreutzia*	0.6970	0.0251
MDA	Negative	*Streptococcus*	-0.6485	0.0425
MDA	Negative	*Escherichia*	-0.6485	0.0425
sIgA	Positive	*Blautia*	0.7333	0.0158
sIgA	Positive	*Faecalibacterium*	0.8424	0.0022
sIgA	Positive	*Collinsella*	0.7212	0.0186
sIgA	Positive	*Lactobacillus*	0.8424	0.0022
MDA	Negative	*Prevotella*	-0.6485	0.0425
sIgA	Positive	*Allobaculum*	0.7212	0.0186
Lactobacillus	Positive	Adenosine 3',5'-diphosphate (PAP)	0.9152	0.0002
Lactobacillus	Positive	S-Methyl-5'-thioadenosine	0.9030	0.0003
Lactobacillus	Positive	Dihydroxyfumarate	0.9030	0.0003
Lactobacillus	Positive	Alpha-D-Glucose	0.9030	0.0003
Lactobacillus	Positive	N-Formylmethionine	0.8909	0.0005
Lactobacillus	Negative	Phosphoenolpyruvate	-0.8909	0.0005
Lactobacillus	Negative	DL-lactate	-0.8909	0.0005

Lactobacillus	Negative	D-Arabinono-1,4-lactone	-0.8788	0.0008
Lactobacillus	Positive	Adenine	0.8788	0.0008
Adlercreutzia	Positive	N-Formylmethionine	0.8667	0.0012
Lactobacillus	Positive	L-Rhamnose	0.8667	0.0012
Lactobacillus	Negative	Ribulose 5-phosphate	-0.8667	0.0012
Lactobacillus	Negative	L-Glutamine	-0.8667	0.0012
Lactobacillus	Negative	9,10-DiHOME	-0.8667	0.0012
Lactobacillus	Positive	16-Hydroxypalmitic acid	0.8545	0.0016
Faecalibacterium prausnitzii	Positive	N-Formylmethionine	0.8545	0.0016
Faecalibacterium	Positive	N-Formylmethionine	0.8545	0.0016
Lactobacillus	Positive	L-Glutamate	0.8545	0.0016
Lactobacillus	Positive	(S)-2-Hydroxyglutarate	0.8545	0.0016
Blautia producta	Positive	L-Rhamnose	0.8424	0.0022
Coprococcus	Positive	Alpha-D-Glucose	0.8424	0.0022
Blautia producta	Negative	Ribulose 5-phosphate	-0.8424	0.0022
Blautia producta	Negative	DL-lactate	-0.8424	0.0022
Coprococcus	Positive	Adenosine 3',5'-diphosphate (PAP)	0.8303	0.0029
Lactobacillus	Negative	2-Methyl-3-hydroxybutyric acid	-0.8303	0.0029
Lactobacillus	Positive	Galactonic acid	0.8303	0.0029
Blautia	Negative	DL-lactate	-0.8303	0.0029
Lactobacillus	Negative	9R,10S-EpOME	-0.8303	0.0029
Lactobacillus	Negative	Acetylglycine	-0.8303	0.0029
Clostridium spiroforme	Negative	2E-Eicosenoic acid	-0.8268	0.0032
Lactobacillus	Positive	Nicotinate	0.8182	0.0038
Faecalibacterium prausnitzii	Positive	S-Methyl-5'-thioadenosine	0.8182	0.0038
Faecalibacterium	Positive	S-Methyl-5'-thioadenosine	0.8182	0.0038
Coprococcus	Negative	D-Arabinono-1,4-lactone	-0.8182	0.0038
Prevotella copri	Positive	Diaminopimelic acid	0.8182	0.0038
Lactobacillus	Positive	Uridine 5'-diphosphate (UDP)	0.8182	0.0038
Lactobacillus	Positive	Dodecanoic acid	0.8182	0.0038
Adlercreutzia	Negative	DL-lactate	-0.8182	0.0038
Lactobacillus	Positive	Citrate	0.8182	0.0038
Clostridium spiroforme	Positive	Uridine 5'-diphosphate (UDP)	0.8146	0.0041
Clostridium spiroforme	Negative	Linoleic acid	-0.8085	0.0046
Blautia producta	Positive	16-Hydroxypalmitic acid	0.8061	0.0049
Blautia producta	Positive	N-Formylmethionine	0.8061	0.0049
Ruminococcus torques	Positive	L-Rhamnose	0.8061	0.0049
Blautia	Positive	L-Rhamnose	0.8061	0.0049
Ruminococcus torques	Negative	Ribulose 5-phosphate	-0.8061	0.0049
Blautia	Negative	Ribulose 5-phosphate	-0.8061	0.0049
Ruminococcus torques	Negative	DL-lactate	-0.8061	0.0049
Prevotella copri	Positive	DL-lactate	0.8061	0.0049
Faecalibacterium prausnitzii	Positive	Citrate	0.8061	0.0049
Faecalibacterium	Positive	Citrate	0.8061	0.0049

Clostridium spiroforme	Positive	Nicotinate	0.8024	0.0052
Blautia producta	Positive	Palmitic acid	0.7939	0.0061
Lactobacillus	Positive	N-Acetyl-L-glutamate	0.7939	0.0061
Lactobacillus	Positive	L-Alanine	0.7939	0.0061
Lactobacillus helveticus	Positive	Dihydroxyfumarate	0.7939	0.0061
Faecalibacterium prausnitzii	Positive	Adenine	0.7939	0.0061
Faecalibacterium	Positive	Adenine	0.7939	0.0061
Faecalibacterium prausnitzii	Positive	L-Rhamnose	0.7939	0.0061
Adlercreutzia	Positive	L-Rhamnose	0.7939	0.0061
Faecalibacterium	Positive	L-Rhamnose	0.7939	0.0061
Gemmiger	Positive	Alpha-D-Glucose	0.7939	0.0061
Coprococcus	Negative	2-Methyl-3-hydroxybutyric acid	-0.7939	0.0061
Faecalibacterium prausnitzii	Negative	Ribulose 5-phosphate	-0.7939	0.0061
Adlercreutzia	Negative	Ribulose 5-phosphate	-0.7939	0.0061
Faecalibacterium	Negative	Ribulose 5-phosphate	-0.7939	0.0061
Other(<0.0005)	Positive	9,10-DiHOME	0.7939	0.0061
Adlercreutzia	Positive	Citrate	0.7939	0.0061
Gemmiger formicilis	Positive	16-Hydroxypalmitic acid	0.7818	0.0075
Collinsella stercoris	Positive	N-Formylmethionine	0.7818	0.0075
Bacteroides plebeius	Negative	Palmitic acid	-0.7818	0.0075
Blautia producta	Positive	Dihydroxyfumarate	0.7818	0.0075
Bacteroides plebeius	Negative	L-Rhamnose	-0.7818	0.0075
Collinsella	Positive	L-Rhamnose	0.7818	0.0075
Gemmiger formicilis	Positive	Alpha-D-Glucose	0.7818	0.0075
Bacteroides plebeius	Positive	Ribulose 5-phosphate	0.7818	0.0075
Collinsella	Negative	Ribulose 5-phosphate	-0.7818	0.0075
Blautia producta	Negative	L-Glutamine	-0.7818	0.0075
Lactobacillus	Positive	L-Asparagine	0.7818	0.0075
Coprococcus	Negative	9,10-DiHOME	-0.7818	0.0075
Bacteroides plebeius	Positive	DL-lactate	0.7818	0.0075
Collinsella	Negative	DL-lactate	-0.7818	0.0075
Coprococcus	Negative	Stearidonic Acid	-0.7818	0.0075
Ruminococcus gnavus	Negative	Sucrose	-0.7818	0.0075
Clostridium spiroforme	Positive	L-Phenylalanine	0.7781	0.0080
Gemmiger	Positive	16-Hydroxypalmitic acid	0.7697	0.0092
Lactobacillus	Positive	D-Mannose 1-phosphate	0.7697	0.0092
Blautia producta	Positive	S-Methyl-5'-thioadenosine	0.7697	0.0092
Gemmiger	Negative	2-Methyl-3-hydroxybutyric acid	-0.7697	0.0092
Bacteroides	Positive	Dihydrouracil	0.7697	0.0092
Lactobacillus	Positive	L-Histidine	0.7697	0.0092
Lactobacillus	Negative	Norethindrone Acetate	-0.7697	0.0092
Lactobacillus	Positive	UDP-N-acetylglucosamine	0.7697	0.0092
Gemmiger formicilis	Negative	Acetylglycine	-0.7697	0.0092
Cetobacterium	Negative	Stearidonic Acid	-0.7697	0.0092

Clostridium spiroforme	Positive	L-Tryptophan	0.7660	0.0098
Clostridium spiroforme	Positive	5-L-Glutamyl-L-alanine	0.7660	0.0098
Faecalibacterium prausnitzii	Positive	16-Hydroxypalmitic acid	0.7576	0.0111
Bacteroides	Negative	16-Hydroxypalmitic acid	-0.7576	0.0111
Faecalibacterium	Positive	16-Hydroxypalmitic acid	0.7576	0.0111
Allobaculum	Positive	16-Hydroxypalmitic acid	0.7576	0.0111
Gemmiger	Positive	Adenosine 3',5'-diphosphate (PAP)	0.7576	0.0111
Bacteroides	Negative	Palmitic acid	-0.7576	0.0111
Gemmiger formicilis	Negative	D-Arabinono-1,4-lactone	-0.7576	0.0111
Blautia producta	Positive	Adenine	0.7576	0.0111
Prevotella copri	Negative	L-Rhamnose	-0.7576	0.0111
Ruminococcus torques	Negative	Diaminopimelic acid	-0.7576	0.0111
Lactobacillus	Negative	Deoxyguanosine triphosphate (dGTP)	-0.7576	0.0111
Lactobacillus	Positive	L-Phenylalanine	0.7576	0.0111
Prevotella copri	Positive	Ribulose 5-phosphate	0.7576	0.0111
Dialister	Negative	L-Glutamine	-0.7576	0.0111
Faecalibacterium prausnitzii	Negative	DL-lactate	-0.7576	0.0111
Faecalibacterium	Negative	DL-lactate	-0.7576	0.0111
Allobaculum	Negative	DL-lactate	-0.7576	0.0111
Gemmiger	Negative	Acetylglycine	-0.7576	0.0111
Bacteroides	Positive	Stearidonic Acid	0.7576	0.0111
Clostridium spiroforme	Negative	L-Gulonic gamma-lactone	-0.7477	0.0129
Lactobacillus	Positive	Phosphorylcholine	0.7455	0.0133
Eubacterium biforme	Positive	16-Hydroxypalmitic acid	0.7455	0.0133
Eubacterium	Positive	16-Hydroxypalmitic acid	0.7455	0.0133
Blautia	Positive	16-Hydroxypalmitic acid	0.7455	0.0133
Lactobacillus	Positive	N-Acetyl-D-lactosamine	0.7455	0.0133
Lactobacillus	Positive	gamma-L-Glutamyl-L-glutamic acid	0.7455	0.0133
Eubacterium	Positive	N-Formylmethionine	0.7455	0.0133
Collinsella	Positive	N-Formylmethionine	0.7455	0.0133
Lactobacillus	Positive	Ribitol	0.7455	0.0133
Lactobacillus	Positive	L-Tryptophan	0.7455	0.0133
Blautia	Positive	Palmitic acid	0.7455	0.0133
Lactobacillus	Positive	Palmitic acid	0.7455	0.0133
Adlercreutzia	Positive	N-Acetyl-L-aspartic acid	0.7455	0.0133
Lactobacillus	Positive	N-Acetyl-L-aspartic acid	0.7455	0.0133
Bacteroides plebeius	Negative	Dihydroxyfumarate	-0.7455	0.0133
Adlercreutzia	Positive	Dihydroxyfumarate	0.7455	0.0133
Gemmiger	Negative	D-Arabinono-1,4-lactone	-0.7455	0.0133
Collinsella stercoris	Positive	L-Rhamnose	0.7455	0.0133
Other(<0.0005)	Negative	Alpha-D-Glucose	-0.7455	0.0133
Eubacterium	Positive	Dodecanoic acid	0.7455	0.0133
Collinsella stercoris	Negative	Ribulose 5-phosphate	-0.7455	0.0133
Lactobacillus	Positive	L-Tyrosine	0.7455	0.0133

Lactobacillus helveticus	Negative	L-Glutamine	-0.7455	0.0133
Bacteroides	Positive	L-Glutamine	0.7455	0.0133
Lactobacillus	Negative	Dihydroxyacetone phosphate	-0.7455	0.0133
Lactobacillus	Positive	5-L-Glutamyl-L-alanine	0.7455	0.0133
Butyricicoccus pullicaecorum	Negative	9,10-DiHOME	-0.7455	0.0133
Collinsella stercoris	Negative	DL-lactate	-0.7455	0.0133
Dialister	Negative	DL-lactate	-0.7455	0.0133
Other(<0.0005)	Positive	Linoleic acid	0.7455	0.0133
Lactobacillus	Positive	1-Deoxy-D-xylulose 5-phosphate	0.7333	0.0158
Lactobacillus	Positive	3-Hydorxy-3-methylglutaric acid	0.7333	0.0158
Eubacterium biforme	Positive	N-Formylmethionine	0.7333	0.0158
Turicibacter	Positive	N-Formylmethionine	0.7333	0.0158
Adlercreutzia	Positive	S-Methyl-5'-thioadenosine	0.7333	0.0158
Turicibacter	Positive	N-Acetyl-L-aspartic acid	0.7333	0.0158
Prevotella copri	Positive	Fructose 1-phosphate	0.7333	0.0158
Bacteroides	Negative	Dihydroxyfumarate	-0.7333	0.0158
Eubacterium	Positive	Adenine	0.7333	0.0158
Slackia	Positive	Alpha-D-Glucose	0.7333	0.0158
Butyricicoccus	Positive	Alpha-D-Glucose	0.7333	0.0158
Gemmiger formicilis	Negative	2-Methyl-3-hydroxybutyric acid	-0.7333	0.0158
Slackia	Negative	2-Methyl-3-hydroxybutyric acid	-0.7333	0.0158
Eubacterium biforme	Positive	Dodecanoic acid	0.7333	0.0158
Blautia producta	Positive	Dodecanoic acid	0.7333	0.0158
Lactobacillus	Positive	Succinate	0.7333	0.0158
Adlercreutzia	Negative	L-Glutamine	-0.7333	0.0158
Blautia	Negative	L-Glutamine	-0.7333	0.0158
Coprococcus	Negative	Norethindrone Acetate	-0.7333	0.0158
Gemmiger	Negative	9,10-DiHOME	-0.7333	0.0158
Butyricicoccus	Negative	9,10-DiHOME	-0.7333	0.0158
Turicibacter	Negative	DL-lactate	-0.7333	0.0158
Clostridium	Negative	DL-lactate	-0.7333	0.0158
Lactobacillus	Positive	Lumichrome	0.7333	0.0158
Eubacterium biforme	Negative	Acetylglycine	-0.7333	0.0158
Coprococcus	Negative	Acetylglycine	-0.7333	0.0158
Bacteroides	Positive	Acetylglycine	0.7333	0.0158
Butyricicoccus pullicaecorum	Negative	Stearidonic Acid	-0.7333	0.0158
Lactobacillus helveticus	Negative	Stearidonic Acid	-0.7333	0.0158
Other(<0.0005)	Positive	L-Gulonic gamma-lactone	0.7333	0.0158
Coprococcus	Negative	L-Gulonic gamma-lactone	-0.7333	0.0158
Clostridium spiroforme	Positive	gamma-L-Glutamyl-L-glutamic acid	0.7295	0.0166
Bulleidia	Positive	D-Ribulose 5-phosphate	0.7212	0.0186
Lactobacillus	Positive	D-Ribulose 5-phosphate	0.7212	0.0186
Gemmiger formicilis	Positive	Adenosine 3',5'-diphosphate (PAP)	0.7212	0.0186
Slackia	Positive	Adenosine 3',5'-diphosphate (PAP)	0.7212	0.0186

Ruminococcus torques	Positive	Palmitic acid	0.7212	0.0186
Prevotella copri	Negative	Palmitic acid	-0.7212	0.0186
Lactobacillus	Positive	Maltotriose	0.7212	0.0186
Lactobacillus	Negative	Thymine	-0.7212	0.0186
Bacteroides	Negative	L-Rhamnose	-0.7212	0.0186
Bacteroides plebeius	Positive	Diaminopimelic acid	0.7212	0.0186
Blautia producta	Negative	Diaminopimelic acid	-0.7212	0.0186
Blautia	Negative	Diaminopimelic acid	-0.7212	0.0186
Lactobacillus	Negative	Diaminopimelic acid	-0.7212	0.0186
Allobaculum	Negative	Diaminopimelic acid	-0.7212	0.0186
Eubacterium	Positive	Alpha-D-Glucose	0.7212	0.0186
Faecalibacterium prausnitzii	Negative	Deoxyguanosine triphosphate (dGTP)	-0.7212	0.0186
Faecalibacterium	Negative	Deoxyguanosine triphosphate (dGTP)	-0.7212	0.0186
Bacteroides plebeius	Positive	Dihydrouracil	0.7212	0.0186
Bacteroides	Positive	Ribulose 5-phosphate	0.7212	0.0186
Faecalibacterium prausnitzii	Negative	L-Glutamine	-0.7212	0.0186
Turicibacter	Negative	L-Glutamine	-0.7212	0.0186
Faecalibacterium	Negative	L-Glutamine	-0.7212	0.0186
Faecalibacterium prausnitzii	Positive	L-Asparagine	0.7212	0.0186
Faecalibacterium	Positive	L-Asparagine	0.7212	0.0186
Gemmiger formicilis	Negative	9,10-DiHOME	-0.7212	0.0186
Bacteroides	Positive	DL-lactate	0.7212	0.0186
Ruminococcus gnavus	Positive	Oleic acid	0.7212	0.0186
Clostridium spiroforme	Positive	L-Tyrosine	0.7173	0.0195
Slackia	Positive	N-Formylmethionine	0.7091	0.0217
Blautia	Positive	N-Formylmethionine	0.7091	0.0217
Lactobacillus	Negative	Galactinol	-0.7091	0.0217
Bulleidia p-1630-c5	Positive	D-Ribulose 5-phosphate	0.7091	0.0217
Collinsella	Positive	S-Methyl-5'-thioadenosine	0.7091	0.0217
Adlercreutzia	Positive	Palmitic acid	0.7091	0.0217
Prevotella copri	Negative	N-Acetyl-L-aspartic acid	-0.7091	0.0217
Lactobacillus	Negative	Fructose 1-phosphate	-0.7091	0.0217
Collinsella stercoris	Positive	Dihydroxyfumarate	0.7091	0.0217
Eubacterium biforme	Positive	Adenine	0.7091	0.0217
Enterococcus	Positive	Adenine	0.7091	0.0217
Bulleidia	Positive	L-Rhamnose	0.7091	0.0217
Allobaculum	Positive	L-Rhamnose	0.7091	0.0217
Lactobacillus	Negative	D-Ribulose 1,5-bisphosphate	-0.7091	0.0217
Slackia	Negative	Diaminopimelic acid	-0.7091	0.0217
Butyricicoccus pullicaecorum	Positive	Alpha-D-Glucose	0.7091	0.0217
Prevotella copri	Positive	Dihydrouracil	0.7091	0.0217
Lactobacillus	Negative	Dihydrouracil	-0.7091	0.0217
Allobaculum	Negative	Dihydrouracil	-0.7091	0.0217
Bulleidia	Negative	Ribulose 5-phosphate	-0.7091	0.0217

Allobaculum	Negative	Ribulose 5-phosphate	-0.7091	0.0217
Slackia	Negative	L-Glutamine	-0.7091	0.0217
Lactobacillus	Positive	3-Hydroxydodecanoic acid	0.7091	0.0217
Bulleidia	Negative	DL-lactate	-0.7091	0.0217
Dorea	Positive	Citrate	0.7091	0.0217
Other(<0.0005)	Negative	UDP-N-acetylglucosamine	-0.7091	0.0217
Butyricicoccus	Negative	Stearidonic Acid	-0.7091	0.0217
Ruminococcus torques	Positive	16-Hydroxypalmitic acid	0.6970	0.0251
Coprococcus	Positive	16-Hydroxypalmitic acid	0.6970	0.0251
Collinsella	Positive	16-Hydroxypalmitic acid	0.6970	0.0251
Faecalibacterium prausnitzii	Positive	Nicotinate	0.6970	0.0251
Faecalibacterium	Positive	Nicotinate	0.6970	0.0251
Lactobacillus	Positive	Nicotinamide adenine dinucleotide (NAD)	0.6970	0.0251
Collinsella stercoris	Positive	S-Methyl-5'-thioadenosine	0.6970	0.0251
Eubacterium	Positive	S-Methyl-5'-thioadenosine	0.6970	0.0251
Faecalibacterium prausnitzii	Positive	Palmitic acid	0.6970	0.0251
Dialister	Positive	Palmitic acid	0.6970	0.0251
Faecalibacterium	Positive	Palmitic acid	0.6970	0.0251
Lactobacillus	Positive	D-Aspartic acid	0.6970	0.0251
Blautia producta	Positive	N-Acetyl-L-aspartic acid	0.6970	0.0251
Other(<0.0005)	Negative	L-Alanine	-0.6970	0.0251
Blautia	Positive	Dihydroxyfumarate	0.6970	0.0251
Coprococcus	Negative	Thymine	-0.6970	0.0251
Dialister	Positive	L-Rhamnose	0.6970	0.0251
Ruminococcus	Positive	L-Rhamnose	0.6970	0.0251
Faecalibacterium prausnitzii	Negative	Phosphoenolpyruvate	-0.6970	0.0251
Faecalibacterium	Negative	Phosphoenolpyruvate	-0.6970	0.0251
Allobaculum	Positive	Alpha-D-Glucose	0.6970	0.0251
Eubacterium	Negative	2-Methyl-3-hydroxybutyric acid	-0.6970	0.0251
Butyricicoccus	Negative	2-Methyl-3-hydroxybutyric acid	-0.6970	0.0251
Lactobacillus	Positive	Uridine 5'-monophosphate (UMP)	0.6970	0.0251
Faecalibacterium prausnitzii	Positive	Dodecanoic acid	0.6970	0.0251
Faecalibacterium	Positive	Dodecanoic acid	0.6970	0.0251
Dialister	Negative	Ribulose 5-phosphate	-0.6970	0.0251
Ruminococcus	Negative	Ribulose 5-phosphate	-0.6970	0.0251
Gemmiger	Negative	L-Glutamine	-0.6970	0.0251
Collinsella	Negative	L-Glutamine	-0.6970	0.0251
Cetobacterium	Negative	Norethindrone Acetate	-0.6970	0.0251
Slackia	Negative	9,10-DiHOME	-0.6970	0.0251
Allobaculum	Negative	9,10-DiHOME	-0.6970	0.0251
Slackia	Negative	DL-lactate	-0.6970	0.0251
Eubacterium	Negative	DL-lactate	-0.6970	0.0251
Ruminococcus	Negative	DL-lactate	-0.6970	0.0251

Blautia producta	Negative	Acetylglycine	-0.6970	0.0251
Lactobacillus helveticus	Negative	Acetylglycine	-0.6970	0.0251
Eubacterium	Negative	Acetylglycine	-0.6970	0.0251
Allobaculum	Negative	Acetylglycine	-0.6970	0.0251
Gemmiger formicilis	Negative	Stearidonic Acid	-0.6970	0.0251
Clostridium spiroforme	Positive	Phosphorylcholine	0.6930	0.0263
Clostridium spiroforme	Positive	Nicotinamide adenine dinucleotide (NAD)	0.6930	0.0263
Clostridium spiroforme	Positive	Adenosine monophosphate (AMP)	0.6930	0.0263
Clostridium spiroforme	Positive	Citrate	0.6930	0.0263
Clostridium spiroforme	Positive	D-Mannose 1-phosphate	0.6869	0.0282
Other(<0.0005)	Negative	Phosphorylcholine	-0.6848	0.0289
Bacteroides plebeius	Negative	16-Hydroxypalmitic acid	-0.6848	0.0289
Slackia	Positive	16-Hydroxypalmitic acid	0.6848	0.0289
Dialister	Positive	16-Hydroxypalmitic acid	0.6848	0.0289
Lactobacillus	Positive	Guanosine 5'-monophosphate (GMP)	0.6848	0.0289
Lactobacillus	Positive	2-Deoxyribose 5-phosphate	0.6848	0.0289
Other(<0.0005)	Negative	L-Glutamate	-0.6848	0.0289
Adlercreutzia	Positive	Adenosine 3',5'-diphosphate (PAP)	0.6848	0.0289
Blautia	Positive	S-Methyl-5'-thioadenosine	0.6848	0.0289
Lactobacillus helveticus	Positive	Palmitic acid	0.6848	0.0289
Collinsella	Positive	Palmitic acid	0.6848	0.0289
Blautia	Positive	N-Acetyl-L-aspartic acid	0.6848	0.0289
Lactobacillus helveticus	Negative	D-Arabinono-1,4-lactone	-0.6848	0.0289
Faecalibacterium prausnitzii	Negative	D-Arabinono-1,4-lactone	-0.6848	0.0289
Slackia	Negative	D-Arabinono-1,4-lactone	-0.6848	0.0289
Faecalibacterium	Negative	D-Arabinono-1,4-lactone	-0.6848	0.0289
Gemmiger formicilis	Positive	Adenine	0.6848	0.0289
Adlercreutzia	Positive	Adenine	0.6848	0.0289
Eubacterium	Negative	Diaminopimelic acid	-0.6848	0.0289
Eubacterium biforme	Positive	Alpha-D-Glucose	0.6848	0.0289
Butyricicoccus pullicaecorum	Negative	2-Methyl-3-hydroxybutyric acid	-0.6848	0.0289
Allobaculum	Negative	2-Methyl-3-hydroxybutyric acid	-0.6848	0.0289
Ruminococcus torques	Negative	Deoxyguanosine triphosphate (dGTP)	-0.6848	0.0289
Ruminococcus torques	Positive	Dodecanoic acid	0.6848	0.0289
Allobaculum	Positive	Dodecanoic acid	0.6848	0.0289
Other(<0.0005)	Negative	Galactonic acid	-0.6848	0.0289
Bacteroides plebeius	Positive	L-Glutamine	0.6848	0.0289
Gemmiger formicilis	Negative	L-Glutamine	-0.6848	0.0289
Eubacterium biforme	Negative	L-Glutamine	-0.6848	0.0289
Collinsella stercoris	Negative	L-Glutamine	-0.6848	0.0289
Eubacterium	Negative	L-Glutamine	-0.6848	0.0289
Allobaculum	Negative	L-Glutamine	-0.6848	0.0289
Other(<0.0005)	Positive	Dihydroxyacetone phosphate	0.6848	0.0289

Eubacterium biforme	Negative	9,10-DiHOME	-0.6848	0.0289
Eubacterium	Negative	9,10-DiHOME	-0.6848	0.0289
Bacteroides plebeius	Negative	Indolelactic acid	-0.6848	0.0289
Lactobacillus	Positive	all cis-(6,9,12)-Linolenic acid	0.6848	0.0289
Coprococcus	Negative	Linoleic acid	-0.6848	0.0289
Other(<0.0005)	Positive	2E-Eicosenoic acid	0.6848	0.0289
Gemmiger	Negative	Stearidonic Acid	-0.6848	0.0289
Lactobacillus	Negative	L-Gulonic gamma-lactone	-0.6848	0.0289
Clostridium spiroforme	Positive	2-Dehydro-3-deoxy-D-gluconate	0.6809	0.0302
Clostridium spiroforme	Positive	UDP-N-acetylglucosamine	0.6748	0.0323
Lactobacillus	Positive	L-Pyroglutamic acid	0.6727	0.0330
Lactobacillus	Positive	Glycerol 3-phosphate	0.6727	0.0330
Dorea	Positive	Nicotinate	0.6727	0.0330
Adlercreutzia	Positive	Nicotinate	0.6727	0.0330
Enterococcus	Positive	Ribitol	0.6727	0.0330
Coprococcus	Positive	L-Glutamate	0.6727	0.0330
Ruminococcus torques	Positive	D-Ribulose 5-phosphate	0.6727	0.0330
Prevotella copri	Negative	D-Ribulose 5-phosphate	-0.6727	0.0330
Dialister	Positive	Adenosine 3',5'-diphosphate (PAP)	0.6727	0.0330
Eubacterium biforme	Positive	S-Methyl-5'-thioadenosine	0.6727	0.0330
Eubacterium biforme	Positive	Palmitic acid	0.6727	0.0330
Turicibacter	Positive	Palmitic acid	0.6727	0.0330
Slackia	Positive	Palmitic acid	0.6727	0.0330
Lactobacillus	Positive	Cyclic adenosine diphosphate ribose	0.6727	0.0330
Ruminococcus torques	Negative	Fructose 1-phosphate	-0.6727	0.0330
Eubacterium biforme	Positive	Dihydroxyfumarate	0.6727	0.0330
Other(<0.0005)	Negative	Dihydroxyfumarate	-0.6727	0.0330
Coprococcus	Positive	Dihydroxyfumarate	0.6727	0.0330
Gemmiger	Positive	Adenine	0.6727	0.0330
Blautia	Positive	Adenine	0.6727	0.0330
Collinsella	Positive	Adenine	0.6727	0.0330
Gemmiger	Negative	Thymine	-0.6727	0.0330
Bulleidia p-1630-c5	Positive	L-Rhamnose	0.6727	0.0330
Turicibacter	Positive	L-Rhamnose	0.6727	0.0330
Slackia	Positive	L-Rhamnose	0.6727	0.0330
Blautia producta	Negative	Phosphoenolpyruvate	-0.6727	0.0330
Allobaculum	Negative	Phosphoenolpyruvate	-0.6727	0.0330
Eubacterium biforme	Negative	Diaminopimelic acid	-0.6727	0.0330
Dialister	Negative	Diaminopimelic acid	-0.6727	0.0330
Bacteroides	Positive	Diaminopimelic acid	0.6727	0.0330
Adlercreutzia	Positive	Uridine 5'-diphosphate (UDP)	0.6727	0.0330
Bacteroides plebeius	Positive	Deoxyguanosine triphosphate (dGTP)	0.6727	0.0330
Prevotella copri	Positive	Deoxyguanosine triphosphate (dGTP)	0.6727	0.0330
Eubacterium biforme	Positive	Succinate	0.6727	0.0330

Bulleidia p-1630-c5	Negative	Ribulose 5-phosphate	-0.6727	0.0330
Turicibacter	Negative	Ribulose 5-phosphate	-0.6727	0.0330
Slackia	Negative	Ribulose 5-phosphate	-0.6727	0.0330
Coprococcus	Positive	Galactonic acid	0.6727	0.0330
Coprococcus	Negative	L-Glutamine	-0.6727	0.0330
Bulleidia p-1630-c5	Negative	DL-lactate	-0.6727	0.0330
Faecalibacterium prausnitzii	Negative	9R,10S-EpOME	-0.6727	0.0330
Faecalibacterium	Negative	9R,10S-EpOME	-0.6727	0.0330
Slackia	Negative	Acetylglycine	-0.6727	0.0330
Dorea	Negative	Linoleic acid	-0.6727	0.0330
Bacteroides plebeius	Positive	Stearidonic Acid	0.6727	0.0330
Clostridium spiroforme	Negative	D-Ribulose 1,5-bisphosphate	-0.6626	0.0368
Collinsella stercoris	Positive	16-Hydroxypalmitic acid	0.6606	0.0376
Prevotella copri	Negative	16-Hydroxypalmitic acid	-0.6606	0.0376
Other(<0.0005)	Negative	Glycerol 3-phosphate	-0.6606	0.0376
Other(<0.0005)	Negative	gamma-L-Glutamyl-L-glutamic acid	-0.6606	0.0376
Gemmiger formicilis	Positive	N-Formylmethionine	0.6606	0.0376
Lactobacillus helveticus	Positive	Adenosine 3',5'-diphosphate (PAP)	0.6606	0.0376
Faecalibacterium prausnitzii	Positive	Adenosine 3',5'-diphosphate (PAP)	0.6606	0.0376
Other(<0.0005)	Negative	Adenosine 3',5'-diphosphate (PAP)	-0.6606	0.0376
Faecalibacterium	Positive	Adenosine 3',5'-diphosphate (PAP)	0.6606	0.0376
Collinsella stercoris	Positive	Palmitic acid	0.6606	0.0376
Allobaculum	Positive	Palmitic acid	0.6606	0.0376
Slackia	Positive	N-Acetyl-L-aspartic acid	0.6606	0.0376
Dialister	Positive	N-Acetyl-L-aspartic acid	0.6606	0.0376
Lactobacillus	Positive	N6-Acetyl-L-lysine	0.6606	0.0376
Lactobacillus	Positive	Adenosine monophosphate (AMP)	0.6606	0.0376
Fusobacterium	Negative	L-Threonate	-0.6606	0.0376
Gemmiger formicilis	Positive	Dihydroxyfumarate	0.6606	0.0376
Slackia	Positive	Dihydroxyfumarate	0.6606	0.0376
Dialister	Positive	Dihydroxyfumarate	0.6606	0.0376
Blautia producta	Negative	D-Arabinono-1,4-lactone	-0.6606	0.0376
Collinsella stercoris	Positive	Adenine	0.6606	0.0376
Allobaculum	Positive	Adenine	0.6606	0.0376
Gemmiger formicilis	Negative	Thymine	-0.6606	0.0376
Eubacterium	Positive	L-Rhamnose	0.6606	0.0376
Bulleidia p-1630-c5	Negative	Diaminopimelic acid	-0.6606	0.0376
Adlercreutzia	Negative	Diaminopimelic acid	-0.6606	0.0376
Blautia producta	Positive	Alpha-D-Glucose	0.6606	0.0376
Blautia producta	Negative	Deoxyguanosine triphosphate (dGTP)	-0.6606	0.0376
Ruminococcus	Negative	Deoxyguanosine triphosphate (dGTP)	-0.6606	0.0376
Bacteroides	Positive	Deoxyguanosine triphosphate (dGTP)	0.6606	0.0376
Adlercreutzia	Positive	L-Phenylalanine	0.6606	0.0376
Bifidobacterium_adolescentis	Positive	Dodecanoic acid	0.6606	0.0376

Gemmiger formicilis	Positive	Dodecanoic acid	0.6606	0.0376
Enterococcus	Positive	Dodecanoic acid	0.6606	0.0376
Blautia	Positive	Dodecanoic acid	0.6606	0.0376
Eubacterium	Negative	Ribulose 5-phosphate	-0.6606	0.0376
Other(<0.0005)	Negative	L-Tyrosine	-0.6606	0.0376
Slackia	Negative	Dihydroxyacetone phosphate	-0.6606	0.0376
Gemmiger	Negative	Norethindrone Acetate	-0.6606	0.0376
Enterococcus	Positive	L-Asparagine	0.6606	0.0376
Eubacterium	Positive	L-Asparagine	0.6606	0.0376
Eubacterium biforme	Negative	DL-lactate	-0.6606	0.0376
Other(<0.0005)	Negative	(S)-2-Hydroxyglutarate	-0.6606	0.0376
Coprococcus	Positive	(S)-2-Hydroxyglutarate	0.6606	0.0376
Bacteroides	Negative	Indolelactic acid	-0.6606	0.0376
Lactobacillus	Positive	Hydroxyphenyllactic acid	0.6606	0.0376
Butyricicoccus pullicaecorum	Negative	Acetylglycine	-0.6606	0.0376
Lactobacillus	Negative	Stearidonic Acid	-0.6606	0.0376
Clostridium spiroforme	Positive	Flavin mononucleotide (FMN)	0.6565	0.0392
Clostridium spiroforme	Positive	L-Glutamate	0.6565	0.0392
Clostridium spiroforme	Positive	Cyclic adenosine diphosphate ribose	0.6565	0.0392
Clostridium spiroforme	Positive	D-Aspartic acid	0.6565	0.0392
Lactobacillus helveticus	Positive	16-Hydroxypalmitic acid	0.6485	0.0425
Gemmiger	Positive	N-Formylmethionine	0.6485	0.0425
Lactobacillus	Positive	2-Dehydro-3-deoxy-D-gluconate	0.6485	0.0425
Bacteroides plebeius	Negative	D-Ribulose 5-phosphate	-0.6485	0.0425
Other(<0.0005)	Negative	L-Tryptophan	-0.6485	0.0425
Blautia producta	Positive	Adenosine 3',5'-diphosphate (PAP)	0.6485	0.0425
Eubacterium	Positive	Adenosine 3',5'-diphosphate (PAP)	0.6485	0.0425
Lactobacillus	Positive	ADP-glucose	0.6485	0.0425
Gemmiger formicilis	Positive	S-Methyl-5'-thioadenosine	0.6485	0.0425
Enterococcus	Positive	S-Methyl-5'-thioadenosine	0.6485	0.0425
Bacteroides plebeius	Negative	N-Acetyl-L-aspartic acid	-0.6485	0.0425
Lactobacillus	Positive	UDP-N-acetylmuraminate	0.6485	0.0425
Bacteroides plebeius	Positive	Fructose 1-phosphate	0.6485	0.0425
Allobaculum	Negative	Fructose 1-phosphate	-0.6485	0.0425
Bifidobacterium_adolescentis	Positive	L-Alanine	0.6485	0.0425
Lactobacillus	Positive	L-Threonate	0.6485	0.0425
Faecalibacterium prausnitzii	Positive	Dihydroxyfumarate	0.6485	0.0425
Faecalibacterium	Positive	Dihydroxyfumarate	0.6485	0.0425
Collinsella	Positive	Dihydroxyfumarate	0.6485	0.0425
Adlercreutzia	Negative	D-Arabinono-1,4-lactone	-0.6485	0.0425
Gemmiger formicilis	Positive	L-Rhamnose	0.6485	0.0425
Eubacterium biforme	Positive	L-Rhamnose	0.6485	0.0425
Lactobacillus helveticus	Positive	L-Rhamnose	0.6485	0.0425
Clostridium	Positive	L-Rhamnose	0.6485	0.0425

Ruminococcus torques	Negative	Phosphoenolpyruvate	-0.6485	0.0425
Blautia	Negative	Phosphoenolpyruvate	-0.6485	0.0425
Other(<0.0005)	Negative	Uridine 5'-diphosphate (UDP)	-0.6485	0.0425
Eubacterium biforme	Negative	2-Methyl-3-hydroxybutyric acid	-0.6485	0.0425
Other(<0.0005)	Positive	2-Methyl-3-hydroxybutyric acid	0.6485	0.0425
Cetobacterium	Negative	2-Methyl-3-hydroxybutyric acid	-0.6485	0.0425
Bulleidia	Negative	Deoxyguanosine triphosphate (dGTP)	-0.6485	0.0425
Blautia	Negative	Deoxyguanosine triphosphate (dGTP)	-0.6485	0.0425
Gemmiger	Positive	Dodecanoic acid	0.6485	0.0425
Gemmiger formicilis	Negative	Ribulose 5-phosphate	-0.6485	0.0425
Eubacterium biforme	Negative	Ribulose 5-phosphate	-0.6485	0.0425
Lactobacillus helveticus	Negative	Ribulose 5-phosphate	-0.6485	0.0425
Clostridium	Negative	Ribulose 5-phosphate	-0.6485	0.0425
Bacteroides plebeius	Negative	cis-9-Palmitoleic acid	-0.6485	0.0425
Adlercreutzia	Positive	L-Histidine	0.6485	0.0425
Other(<0.0005)	Negative	5-L-Glutamyl-L-alanine	-0.6485	0.0425
Gemmiger formicilis	Negative	Norethindrone Acetate	-0.6485	0.0425
Lactobacillus helveticus	Negative	9,10-DiHOME	-0.6485	0.0425
Lactobacillus helveticus	Negative	DL-lactate	-0.6485	0.0425
Coprococcus	Negative	9R,10S-EpOME	-0.6485	0.0425
Lactobacillus helveticus	Positive	(S)-2-Hydroxyglutarate	0.6485	0.0425
Bacteroides	Negative	(S)-2-Hydroxyglutarate	-0.6485	0.0425
Lactobacillus	Negative	Linoleic acid	-0.6485	0.0425
Allobaculum	Negative	Stearidonic Acid	-0.6485	0.0425
Clostridium spiroforme	Positive	N-Acetyl-L-glutamate	0.6383	0.0470
Clostridium spiroforme	Positive	L-Alanine	0.6383	0.0470
Bacteroides_coprophilus	Positive	Deoxyguanosine triphosphate (dGTP)	0.6383	0.0470
Adlercreutzia	Positive	16-Hydroxypalmitic acid	0.6364	0.0479
Lactobacillus	Positive	D-Tagatose	0.6364	0.0479
Lactobacillus	Positive	Flavin mononucleotide (FMN)	0.6364	0.0479
Adlercreutzia	Positive	L-Tryptophan	0.6364	0.0479
Butyricicoccus	Positive	Adenosine 3',5'-diphosphate (PAP)	0.6364	0.0479
Escherichia	Positive	Adenosine 3',5'-diphosphate (PAP)	0.6364	0.0479
Allobaculum	Positive	Adenosine 3',5'-diphosphate (PAP)	0.6364	0.0479
Gemmiger	Positive	S-Methyl-5'-thioadenosine	0.6364	0.0479
Allobaculum	Positive	S-Methyl-5'-thioadenosine	0.6364	0.0479
Eubacterium	Positive	Palmitic acid	0.6364	0.0479
Other(<0.0005)	Negative	D-Aspartic acid	-0.6364	0.0479
Faecalibacterium prausnitzii	Positive	N-Acetyl-L-aspartic acid	0.6364	0.0479
Faecalibacterium	Positive	N-Acetyl-L-aspartic acid	0.6364	0.0479
Lactobacillus	Positive	L-Threonine	0.6364	0.0479
Ruminococcus torques	Positive	Dihydroxyfumarate	0.6364	0.0479
Other(<0.0005)	Positive	D-Arabinono-1,4-lactone	0.6364	0.0479
Lactobacillus	Positive	L-Valine	0.6364	0.0479

Gemmiger	Positive	L-Rhamnose	0.6364	0.0479
Coprococcus	Negative	Phosphoenolpyruvate	-0.6364	0.0479
Ruminococcus	Negative	Phosphoenolpyruvate	-0.6364	0.0479
Bacteroides	Positive	Phosphoenolpyruvate	0.6364	0.0479
Bulleidia	Negative	Diaminopimelic acid	-0.6364	0.0479
Gemmiger	Negative	Diaminopimelic acid	-0.6364	0.0479
Faecalibacterium prausnitzii	Positive	Uridine 5'-diphosphate (UDP)	0.6364	0.0479
Dorea	Positive	Uridine 5'-diphosphate (UDP)	0.6364	0.0479
Faecalibacterium	Positive	Uridine 5'-diphosphate (UDP)	0.6364	0.0479
Prevotella copri	Positive	2-Methyl-3-hydroxybutyric acid	0.6364	0.0479
Other(<0.0005)	Negative	L-Phenylalanine	-0.6364	0.0479
Ruminococcus torques	Negative	Dihydrouracil	-0.6364	0.0479
Prevotella copri	Negative	Dodecanoic acid	-0.6364	0.0479
Adlercreutzia	Positive	Dodecanoic acid	0.6364	0.0479
Gemmiger	Negative	Ribulose 5-phosphate	-0.6364	0.0479
Lactobacillus helveticus	Positive	Galactonic acid	0.6364	0.0479
Lactobacillus	Positive	Uracil	0.6364	0.0479
Eubacterium biforme	Negative	Dihydroxyacetone phosphate	-0.6364	0.0479
Adlercreutzia	Positive	5-L-Glutamyl-L-alanine	0.6364	0.0479
Gemmiger	Negative	DL-lactate	-0.6364	0.0479
Blautia producta	Positive	Citrate	0.6364	0.0479
Collinsella stercoris	Positive	Citrate	0.6364	0.0479
Lactobacillus	Positive	Myristic acid	0.6364	0.0479
Dialister	Negative	Acetylglycine	-0.6364	0.0479
Butyricicoccus	Negative	Acetylglycine	-0.6364	0.0479
Streptococcus	Negative	Linoleic acid	-0.6364	0.0479
Other(<0.0005)	Positive	Stearidonic Acid	0.6364	0.0479
Dorea	Negative	L-Gulonic gamma-lactone	-0.6364	0.0479
Ruminococcus	Negative	Sucrose	-0.6364	0.0479
16-Hydroxypalmitic acid	Positive	sIgA	0.9394	0.0001
L-Asparagine	Positive	sIgA	0.9394	0.0001
Adenine	Positive	sIgA	0.9273	0.0001
L-Fucose-1-phosphate	Negative	IL-6	-0.9152	0.0002
S-Methyl-5'-thioadenosine	Positive	sIgA	0.9030	0.0003
Dodecanoic acid	Positive	sIgA	0.8909	0.0005
3-Hydorxy-3-methylglutaric acid	Positive	sIgA	0.8667	0.0012
Ribitol	Positive	sIgA	0.8667	0.0012
Deoxyguanosine triphosphate (dGTP)	Negative	sIgA	-0.8667	0.0012
N-Formylmethionine	Positive	sIgA	0.8545	0.0016
Phosphoenolpyruvate	Negative	sIgA	-0.8545	0.0016
Creatinine	Negative	IL-6	-0.8424	0.0022
L-Rhamnose	Positive	sIgA	0.8424	0.0022
Uridine diphosphate glucose(UDP-D-Glucose)	Positive	IL-6	0.8424	0.0022
Ribulose 5-phosphate	Negative	sIgA	-0.8424	0.0022

L-Glutamine	Negative	sIgA	-0.8424	0.0022
Thymine	Negative	sIgA	-0.8303	0.0029
DL-lactate	Negative	sIgA	-0.8303	0.0029
Acetylglycine	Negative	sIgA	-0.8303	0.0029
1-Deoxy-D-xylulose 5-phosphate	Positive	sIgA	0.8182	0.0038
Palmitic acid	Positive	sIgA	0.8182	0.0038
Adenosine 3',5'-diphosphate (PAP)	Positive	sIgA	0.8061	0.0049
Uridine diphosphate glucose(UDP-D-Glucose)	Negative	sIgA	-0.8061	0.0049
Uracil	Positive	sIgA	0.8061	0.0049
Uracil	Negative	IL-6	-0.8061	0.0049
9R,10S-EpOME	Negative	sIgA	-0.8061	0.0049
Indolelactic acid	Negative	IL-6	-0.8061	0.0049
D-Arabinono-1,4-lactone	Negative	sIgA	-0.7939	0.0061
Diaminopimelic acid	Negative	sIgA	-0.7939	0.0061
Alpha-D-Glucose	Positive	sIgA	0.7939	0.0061
2-Methyl-3-hydroxybutyric acid	Negative	sIgA	-0.7939	0.0061
cis-9-Palmitoleic acid	Negative	IL-6	-0.7939	0.0061
L-Pyroglutamic acid	Positive	sIgA	0.7818	0.0075
Succinate	Positive	sIgA	0.7818	0.0075
N-Acetyl-L-aspartic acid	Positive	sIgA	0.7697	0.0092
Dihydrouracil	Negative	sIgA	-0.7697	0.0092
Norethindrone Acetate	Negative	sIgA	-0.7697	0.0092
Citrate	Positive	sIgA	0.7697	0.0092
N-Acetyl-D-lactosamine	Positive	sIgA	0.7576	0.0111
L-Glutamate	Positive	sIgA	0.7576	0.0111
D-Ribulose 5-phosphate	Positive	sIgA	0.7576	0.0111
myo-Inositol	Positive	sIgA	0.7576	0.0111
Nicotinate	Positive	sIgA	0.7455	0.0133
L-Carnitine	Negative	IL-6	-0.7455	0.0133
Fructose 1-phosphate	Negative	sIgA	-0.7455	0.0133
3-Hydroxydodecanoic acid	Positive	sIgA	0.7455	0.0133
Myristic acid	Negative	IL-6	-0.7455	0.0133
Lumichrome	Positive	sIgA	0.7455	0.0133
Galactinol	Negative	sIgA	-0.7333	0.0158
Palmitic acid	Negative	IL-6	-0.7333	0.0158
(S)-2-Hydroxyglutarate	Positive	sIgA	0.7333	0.0158
3-Hydroxydodecanoic acid	Negative	IL-6	-0.7212	0.0186
9,10-DiHOME	Negative	sIgA	-0.7212	0.0186
Myristic acid	Positive	sIgA	0.7212	0.0186
Indolelactic acid	Positive	sIgA	0.7212	0.0186
L-Pyroglutamic acid	Negative	IL-6	-0.7091	0.0217
Galactinol	Positive	IL-6	0.7091	0.0217
Dihydroxyfumarate	Positive	sIgA	0.7091	0.0217
Succinate	Negative	IL-6	-0.7091	0.0217

S-Methyl-5'-thioadenosine	Positive	IgG	0.6991	0.0245
1-Deoxy-D-xylulose 5-phosphate	Negative	IL-6	-0.6970	0.0251
D-Ribulose 1,5-bisphosphate	Negative	sIgA	-0.6970	0.0251
Galactonic acid	Positive	sIgA	0.6970	0.0251
Adenine	Positive	IgG	0.6869	0.0282
L-Alanine	Positive	sIgA	0.6848	0.0289
Uridine 5'-diphosphate (UDP)	Positive	sIgA	0.6848	0.0289
L-Tyrosine	Positive	sIgA	0.6848	0.0289
cis-9-Palmitoleic acid	Positive	sIgA	0.6848	0.0289
all cis-(6,9,12)-Linolenic acid	Positive	sIgA	0.6848	0.0289
16-Hydroxypalmitic acid	Negative	IL-6	-0.6727	0.0330
Creatinine	Positive	sIgA	0.6727	0.0330
UDP-N-acetylmuraminate	Positive	sIgA	0.6727	0.0330
myo-Inositol	Negative	IL-6	-0.6727	0.0330
UDP-N-acetylglucosamine	Positive	sIgA	0.6727	0.0330
ADP-glucose	Negative	IL-6	-0.6606	0.0376
Cyclic adenosine diphosphate ribose	Positive	sIgA	0.6606	0.0376
N-Acetyl-L-glutamate	Positive	sIgA	0.6606	0.0376
L-Threonine	Positive	sIgA	0.6606	0.0376
L-Valine	Positive	sIgA	0.6606	0.0376
Deoxyguanosine triphosphate (dGTP)	Positive	IL-6	0.6606	0.0376
Uridine 5'-monophosphate (UMP)	Positive	sIgA	0.6606	0.0376
3-Hydorxy-3-methylglutaric acid	Negative	IL-6	-0.6485	0.0425
2-Deoxyribose 5-phosphate	Positive	sIgA	0.6485	0.0425
Flavin mononucleotide (FMN)	Negative	IL-6	-0.6485	0.0425
L-Carnitine	Positive	sIgA	0.6485	0.0425
Nicotinamide adenine dinucleotide (NAD)	Positive	sIgA	0.6485	0.0425
D-Aspartic acid	Positive	sIgA	0.6485	0.0425
Maltotriose	Positive	sIgA	0.6485	0.0425
L-Phenylalanine	Positive	sIgA	0.6485	0.0425
L-Histidine	Positive	sIgA	0.6485	0.0425
Dihydroxyacetone phosphate	Negative	sIgA	-0.6485	0.0425
L-Asparagine	Negative	IL-6	-0.6485	0.0425
Hydroxyphenyllactic acid	Negative	IL-6	-0.6485	0.0425
D-Mannose	Negative	IL-6	-0.6364	0.0479
D-Mannose 1-phosphate	Positive	sIgA	0.6364	0.0479
Guanosine 5'-monophosphate (GMP)	Positive	sIgA	0.6364	0.0479
Ribitol	Negative	IL-6	-0.6364	0.0479
ADP-glucose	Positive	sIgA	0.6364	0.0479
Cyclic adenosine diphosphate ribose	Negative	IL-6	-0.6364	0.0479
Dodecanoic acid	Negative	IL-6	-0.6364	0.0479
Hydroxyphenyllactic acid	Positive	sIgA	0.6364	0.0479
Oleic acid	Negative	IL-6	-0.6364	0.0479