

Table S1

Functional analysis of fluid biomarkers: canonical pathways described by $-\log(p\text{-value})$ and z-score value.

Ingenuity Canonical Pathways	$-\log(p\text{-value})$	z-score
Tumor Microenvironment Pathway	11.7	3.162
Cachexia Signaling Pathway	7.28	3.162
Neuroinflammation Signaling Pathway	6.74	3
Hepatic Fibrosis Signaling Pathway	5.7	3
Pathogen Induced Cytokine Storm Signaling Pathway	13.3	2.84
Role of JAK family kinases in IL-6-type Cytokine Signaling	10.4	2.828
Role of Hypercytokinemia/hyperchemokineemia in the Pathogenesis of Influenza	8.46	2.646
IL-17 Signaling	6.13	2.646
Cardiac Hypertrophy Signaling (Enhanced)	3.19	2.646
Systemic Lupus Erythematosus in B Cell Signaling Pathway	2.47	2.646
TREM1 Signaling	7.2	2.449
HMGB1 Signaling	5.22	2.449
NOD1/2 Signaling Pathway	4.91	2.449
IL-6 Signaling	4.58	2.236
IL-33 Signaling Pathway	3.84	2.236
Role of Osteoblasts in Rheumatoid Arthritis Signaling Pathway	3.28	2.236
Wound Healing Signaling Pathway	7.59	2.121
Differential Regulation of Cytokine Production in Macrophages and T Helper Cells by IL-17A and IL-17F	6.84	2
Differential Regulation of Cytokine Production in Intestinal Epithelial Cells by IL-17A and IL-17F	6.38	2
Activation of IRF by Cytosolic Pattern Recognition Receptors	4.54	2
Role of Chondrocytes in Rheumatoid Arthritis Signaling Pathway	4.4	2
Role of MAPK Signaling in Inhibiting the Pathogenesis of Influenza	4.2	2
Immunogenic Cell Death Signaling Pathway	3.98	2
Pulmonary Fibrosis Idiopathic Signaling Pathway	2.72	2
Activin Inhibin Signaling Pathway	2.55	2
Colorectal Cancer Metastasis Signaling	2.2	2
Acute Phase Response Signaling	13.1	1.89
Macrophage Classical Activation Signaling Pathway	8.68	1.667
Serotonin Receptor Signaling	2.78	1.633
Dendritic Cell Maturation	2.27	1.633
S100 Family Signaling Pathway	1.75	1.633
IL-17A Signaling in Fibroblasts	6.88	1.342
Role of Tissue Factor in Cancer	3.61	1.342
Role of Osteoclasts in Rheumatoid Arthritis Signaling Pathway	2.83	1.342
Multiple Sclerosis Signaling Pathway	5.64	1.134
Role of Pattern Recognition Receptors in Recognition of Bacteria and Viruses	6.67	1
ID1 Signaling Pathway	3.67	1
DHCR24 Signaling Pathway	5.72	0.816
Production of Nitric Oxide and Reactive Oxygen Species in Macrophages	4.89	0.816
Macrophage Alternative Activation Signaling Pathway	3.79	0.447
Neutrophil Extracellular Trap Signaling Pathway	1.64	0
LXR/RXR Activation	10.3	-0.333

IL-10 Signaling	4.21	-0.447
IL-12 Signaling and Production in Macrophages	6.64	-0.707
RAR Activation	3.8	-1.134
CDX Gastrointestinal Cancer Signaling Pathway	3.66	-1.342
Erythropoietin Signaling Pathway	3.94	-2.236
Adrenergic Receptor Signaling Pathway (Enhanced)	3.68	-2.236

Table S2

Functional analysis of fluid biomarkers: disease and biofunctions described by -log(p-value) and z-score value

Diseases or Functions Annotation	p-value	Predicted Activation State	Activation z-score	-LOG10 p-value
Cell viability of tumor cells	1.58E-08	Increased	2.401	7.80
Cell viability of cancer cells	8.85E-08	Increased	2.183	7.05
Proliferation of myeloma cells	6.30E-09	Increased	2.219	8.20
Proliferation of tumor cells	2.38E-15	Increased	2.295	14.62
Proliferation of cancer cells	7.92E-14	Increased	2.12	13.10
Hepatocellular carcinoma	9.61E-08	Increased	2.35	7.02
Hepato-pancreato-biliary cancer	1.28E-08	Increased	2.218	7.89
Neoplasia of tumor cell lines	1.02E-07	Increased	3.026	6.99
Growth of carcinoma	2.72E-09	Increased	2.779	8.57
Metastasis of cells	5.33E-07	Increased	2.747	6.27
Growth of tumor	6.35E-13	Increased	2.639	12.20
Advanced malignant tumor	1.44E-14	Increased	2.604	13.84
Metastasis	1.87E-14	Increased	2.604	13.73
Invasive cancer	1.65E-13	Increased	2.604	12.78
Cancer of tumor cell lines	1.75E-07	Increased	2.562	6.76
Growth of solid tumor	1.16E-13	Increased	2.348	12.94
Growth of malignant tumor	9.17E-16	Increased	2.283	15.04
Visceral metastasis	2.02E-08	Increased	2.215	7.69
Extrahepatic metastasis	8.16E-08	Increased	2.201	7.09
Lung cancer	1.17E-07	Increased	2.605	6.93
Progression of tumor	4.58E-13	Increased	2.921	12.34
Invasion of tumor	1.49E-07	Increased	2.414	6.83
Progressive solid tumor	6.45E-07	Increased	2.219	6.19
Cell cycle progression	1.18E-07	Increased	3.385	6.93
Mitogenesis	5.34E-17	Increased	3.231	16.27
Mitosis	2.17E-10	Increased	3.057	9.66
Binding of protein binding site	4.21E-08	Increased	2.352	7.38
Polarization of blood cells	8.82E-12	Increased	2.726	11.05
Polarization of leukocytes	1.94E-10	Increased	2.556	9.71
Polarization of myeloid cells	1.79E-09	Increased	2.391	8.75
Polarization of phagocytes	2.59E-09	Increased	2.388	8.59
Shape change of connective tissue cells	1.38E-08	Increased	2.207	7.86
Shape change of myeloid cells	9.02E-09	Increased	2.19	8.04
Shape change of leukocytes	3.02E-07	Increased	2.19	6.52
Polarization of cells	7.10E-14	Increased	2.141	13.15
Cell spreading of phagocytes	6.63E-08	Increased	2	7.18
MAPKKK cascade	1.80E-07	Increased	2.425	6.74
Quantity of Ca2+	6.69E-16	Increased	2.237	15.17
Adhesion of T lymphocytes	3.98E-08	Increased	2.41	7.40

Recruitment of T lymphocytes	6.21E-12	Increased	2.063	11.21
T cell development	4.11E-07	Increased	2.402	6.39
NK cell migration	3.87E-07	Increased	2.214	6.41
Adhesion of lymphatic system cells	1.37E-14	Increased	3.071	13.86
Binding of connective tissue cells	3.02E-14	Increased	2.591	13.52
Adhesion of leukemia cell lines	1.91E-09	Increased	2.585	8.72
Adhesion of connective tissue cells	4.24E-09	Increased	2.531	8.37
Binding of lymphatic system cells	9.04E-22	Increased	2.525	21.04
Binding of epithelial cells	1.07E-08	Increased	2.387	7.97
Activation of cells	6.43E-19	Increased	2.247	18.19
Binding of tumor cell lines	1.51E-17	Increased	2.219	16.82
Binding of hematopoietic cell lines	4.19E-08	Increased	2.186	7.38
Adhesion of epithelial cells	1.03E-07	Increased	2.177	6.99
Binding of leukemia cell lines	2.45E-12	Increased	2.159	11.61
Adhesion of tumor cell lines	3.42E-12	Increased	2.042	11.47
Cell-cell contact	5.65E-07	Increased	2.676	6.25
Phagocytosis of myeloid cells	4.35E-11	Increased	2.12	10.36
Phagocytosis of neutrophils	2.05E-08	Increased	2.412	7.69
Phagocytosis of phagocytes	1.79E-12	Increased	2.315	11.75
Phagocytosis of bacteria	5.37E-08	Increased	2.211	7.27
Stimulation of myeloid cells	6.84E-13	Increased	2.297	12.16
Stimulation of antigen presenting cells	3.47E-09	Increased	2.186	8.46
Stimulation of phagocytes	5.21E-10	Increased	2.586	9.28
Attraction of blood cells	5.04E-11	Increased	2.159	10.30
Attraction of cells	1.94E-12	Increased	2.098	11.71
Recruitment of leukocytes	3.64E-21	Increased	2.031	20.44
Attraction of lymphocytes	2.35E-08	Increased	2.191	7.63
Activation of fibroblasts	7.93E-08	Increased	2.2	7.10
Adhesion of fibroblasts	4.66E-10	Increased	2.138	9.33
Binding of leukocytes	1.03E-25	Increased	3.348	24.99
Binding of mononuclear leukocytes	4.93E-24	Increased	3.129	23.31
Activation of myeloid cells	8.39E-13	Increased	2.632	12.08
Activation of blood cells	7.41E-16	Increased	2.467	15.13
Binding of lymphocytes	3.35E-19	Increased	2.348	18.47
Binding of T lymphocytes	1.03E-12	Increased	2.011	11.99

Adhesion of mononuclear leukocytes	4.36E-20	Increased	3.375	19.36
Adhesion of immune cells	1.09E-23	Increased	3.295	22.96
Adhesion of lymphocytes	2.58E-13	Increased	3.074	12.59
Activation of phagocytes	1.64E-14	Increased	2.469	13.79
Activation of leukocytes	1.57E-15	Increased	2.45	14.80
Activation of macrophages	1.74E-12	Increased	2.346	11.76
Activation of antigen presenting cells	3.75E-13	Increased	2.214	12.43
Response of neutrophils	4.75E-15	Increased	2.945	14.32
Immune response of neutrophils	1.31E-13	Increased	2.931	12.88
Binding of monocytes	1.70E-11	Increased	2.404	10.77
Activation of astrocytes	1.06E-07	Increased	2.19	6.97
Assembly of organelle	1.24E-07	Increased	2.344	6.91
Organization of cytoskeleton	9.39E-09	Increased	2.109	8.03
Fibrogenesis	1.38E-09	Increased	2.142	8.86
Epithelial-mesenchymal transition	9.73E-09	Increased	2.474	8.01
Epithelial-mesenchymal transition of tumor cell lines	1.70E-08	Increased	2.256	7.77
Cell proliferation of tumor cell lines	2.76E-09	Increased	2.271	8.56
Development of tumor cell lines	1.31E-07	Increased	2.109	6.88
Proliferation of liver cells	2.27E-09	Increased	2.595	8.64
Proliferation of hepatocytes	4.24E-09	Increased	2.204	8.37
Lymphopoiesis	2.17E-08	Increased	2.526	7.66
Development of bone marrow cells	2.27E-09	Increased	2.24	8.64
Proliferation of endocrine cells	4.37E-09	Increased	2.592	8.36
Proliferation of neuroendocrine cells	5.90E-07	Increased	2.401	6.23
Proliferation of pancreatic cells	2.64E-08	Increased	2.586	7.58
Proliferation of islet cells	2.68E-07	Increased	2.401	6.57
Cell proliferation of leukocyte cell lines	5.22E-11	Increased	2.423	10.28
Proliferation of B-lymphocyte derived cell lines	3.48E-09	Increased	2.076	8.46
Differentiation of mononuclear leukocytes	1.21E-10	Increased	2.609	9.92
Hematopoiesis of mononuclear leukocytes	9.26E-10	Increased	2.433	9.03
Leukopoiesis	6.57E-12	Increased	2.238	11.18

Proliferation of muscle cells	1.69E-16	Increased	2.355	15.77
Proliferation of smooth muscle cells	4.93E-16	Increased	2.182	15.31
Differentiation of bone marrow cells	5.55E-08	Increased	2.145	7.26
Engulfment of cells	3.06E-13	Increased	2.628	12.51
Endocytosis by eukaryotic cells	4.99E-12	Increased	2.472	11.30
Engulfment of phagocytes	3.64E-13	Increased	2.471	12.44
Engulfment of bacteria	5.57E-11	Increased	2.426	10.25
Endocytosis	2.63E-11	Increased	2.34	10.58
Internalization of cells	1.06E-12	Increased	2.104	11.97
Lymphocyte homeostasis	1.39E-07	Increased	2.052	6.86
Proliferation of epithelial cells	6.66E-12	Increased	2.316	11.18
Invasion of cells	5.43E-17	Increased	3.395	16.27
Invasion of tumor cell lines	3.42E-12	Increased	3.37	11.47
Cell movement of tumor cell lines	8.92E-09	Increased	3.259	8.05
Migration of tumor cell lines	5.99E-09	Increased	3.119	8.22
Invasion of carcinoma cell lines	3.89E-08	Increased	2.899	7.41
Homing of cells	5.61E-22	Increased	2.852	21.25
Chemotaxis	4.97E-20	Increased	2.717	19.30
Migration of cancer cells	9.48E-18	Increased	2.615	17.02
Invasion of prostate cancer cell lines	7.54E-09	Increased	2.537	8.12
Cell movement	1.37E-17	Increased	2.51	16.86
Migration of cells	2.61E-18	Increased	2.51	17.58
Migration of adenocarcinoma cell lines	4.51E-07	Increased	2.449	6.35
Cell movement of tumor cells	1.21E-16	Increased	2.424	15.92
Movement of progenitor cells	4.88E-09	Increased	2.401	8.31
Migration of tumor cells	1.28E-19	Increased	2.343	18.89
Migration of breast cancer cell lines	6.32E-11	Increased	2.318	10.20
Cell movement of connective tissue cells	4.46E-14	Increased	2.151	13.35
Invasion of breast cancer cell lines	1.21E-08	Increased	2.127	7.92
Cell movement of cancer cells	1.50E-13	Increased	2.051	12.82
Mobilization of lymphatic system cells	3.43E-07	Increased	2	6.46
Mobilization of blood cells	2.06E-09	Increased	2.59	8.69

Mobilization of myeloid cells	5.04E-08	Increased	2.195	7.30
Cell movement of hematopoietic progenitor cells	5.98E-09	Increased	2.191	8.22
Mobilization of hematopoietic progenitor cells	1.10E-07	Increased	2.203	6.96
Transmigration of mononuclear leukocytes	1.23E-08	Increased	2.399	7.91
Cell movement of lymphocytes	3.05E-12	Increased	2.258	11.52
Migration of mononuclear leukocytes	7.81E-14	Increased	2.208	13.11
Cell movement of mononuclear leukocytes	2.06E-15	Increased	2.169	14.69
Homing of leukocytes	1.51E-21	Increased	2.159	20.82
Chemotaxis of mononuclear leukocytes	9.07E-14	Increased	2.295	13.04
Migration of neutrophils	5.41E-11	Increased	2.271	10.27
Cell movement of monocytes	1.98E-12	Increased	2.182	11.70
Migration of phagocytes	2.11E-19	Increased	2.164	18.68
Chemotaxis of leukocytes	1.04E-20	Increased	2.159	19.98
Chemotaxis of monocytes	3.55E-08	Increased	2.063	7.45
Chemotaxis of lymphocytes	1.58E-11	Increased	2.155	10.80
Cell movement of lymphatic system cells	3.63E-13	Increased	2.394	12.44
Homing of lymphatic system cells	9.29E-12	Increased	2.325	11.03
Cell movement of vascular smooth muscle cells	6.76E-15	Increased	2.078	14.17
Metabolism of reactive oxygen species	1.86E-13	Increased	2.256	12.73
Synthesis of reactive oxygen species	9.59E-12	Increased	2.102	11.02
Quantity of reactive oxygen species	5.88E-07	Increased	2.304	6.23
Transcription	2.64E-07	Increased	2.39	6.58
Development of bone marrow	4.86E-10	Increased	2.426	9.31
Inflammatory response	6.67E-22	Increased	2.71	21.18
Innate immune response	2.17E-07	Increased	2.205	6.66
Acute phase reaction	5.71E-14	Increased	2.169	13.24
Fatty acid metabolism	2.15E-08	Increased	2.246	7.67
Quantity of metal	3.19E-16	Increased	2.719	15.50
Growth of lesion	8.49E-14	Increased	2.639	13.07
Phosphorylation of protein	1.34E-09	Increased	2.424	8.87
Fertility	2.81E-08	Increased	2.985	7.55

Growth of melanoma	3.20E-07	Decreased	-2.186	6.49
Parasitic Infection	2.47E-07	Decreased	-2.058	6.61
Organismal death	1.82E-16	Decreased	-2.69	15.74

Table S3

Functional analysis of tissue biomarkers: canonical pathways described by $-\log(\text{p-value})$ and z-score value.

Ingenuity Canonical Pathways	$-\log(\text{p-value})$	Ratio	z-score
S100 Family Signaling Pathway	5.14	0.009	1.89
Macrophage Alternative Activation Signaling Pathway	4.46	0.021	1

Table S4

Functional analysis of tissue biomarkers: diseases and biofunctions described by $-\log(\text{p-value})$ and z-score value.

Diseases or Functions Annotation	p-value	Predicted Activation State	Activation z-score	-LOG10 p-value
Migration of vascular endothelial cells	5.93E-06	Increased	2.187	5.23
Cell viability	8.65E-04	Increased	2.481	3.06
Aggregation of cells	8.40E-05	Increased	2.145	4.08
Migration of cells	4.31E-05	Increased	2.828	4.37
Cell movement	2.25E-05	Increased	2.781	4.65
Cell movement of tumor cell lines	1.03E-06	Increased	2.589	5.99
Migration of tumor cell lines	2.99E-06	Increased	2.432	5.52
Migration of vascular cells	1.43E-06	Increased	2.397	5.84
Invasion of carcinoma cell lines	3.84E-06	Increased	2.363	5.42
Migration of breast cancer cell lines	2.38E-05	Increased	2.356	4.62
Cell movement of carcinoma cell lines	6.94E-06	Increased	2.354	5.16
Migration of carcinoma cell lines	5.55E-05	Increased	2.157	4.26
Invasion of tumor cell lines	1.24E-06	Increased	2.023	5.91
Inflammatory response	3.19E-05	Increased	2.029	4.50
Size of body	1.47E-03	Increased	2.183	2.83
Growth failure or short stature	9.31E-05	Decreased	-2	4.03
Growth Failure	1.92E-03	Decreased	-2	2.72
Glucose metabolism disorder	1.45E-04	Decreased	-2.181	3.84
Edema	2.65E-04	Decreased	-2.213	3.58
Organismal death	1.42E-04	Decreased	-2.779	3.85

Table S5

Functional analysis of fluid biomarkers: upstream regulators described by -log(p-value) and z-score value.

Upstream Regulator	Molecule Type	Predicted Activation State	Activation z-score	p-value of overlap
lipopolysaccharide	chemical drug	Activated	4.168	6.33E-21
TNF	cytokine	Activated	3.998	5.61E-23
IL1	group	Activated	3.746	1.01E-21
IL1B	cytokine	Activated	3.646	9.68E-15
cisplatin	chemical drug	Activated	3.484	5.48E-11
poly rI:rC-RNA	biologic drug	Activated	3.431	2.45E-14
HIF1A	transcription regulator	Activated	3.406	3.68E-16
CHUK	kinase	Activated	3.323	3.21E-13
LEP	growth factor	Activated	3.278	3.85E-17
NFkB (complex)	complex	Activated	3.271	1.10E-21
OSM	cytokine	Activated	3.264	4.67E-24
PDGFB	growth factor	Activated	3.248	3.05E-19
Tnf (family)	group	Activated	3.245	8.93E-11
ERK1/2	group	Activated	3.236	1.29E-16
IKBKB	kinase	Activated	3.196	2.31E-15
IL33	cytokine	Activated	3.192	9.81E-10
IL2	cytokine	Activated	3.187	6.84E-07
IL1A	cytokine	Activated	3.146	3.31E-15
TLR3	transmembrane receptor	Activated	3.141	2.43E-16
HRAS	enzyme	Activated	3.12	1.49E-13
APP	other	Activated	3.117	1.63E-06
CD3	complex	Activated	3.094	5.63E-06
ionomycin	chemical reagent	Activated	3.087	1.20E-10
IL12 (complex)	complex	Activated	3.073	1.67E-10
Ige	complex	Activated	3.05	6.44E-11
IL4	cytokine	Activated	3.024	4.46E-10
C5	cytokine	Activated	3.016	3.41E-14
STAT3	transcription regulator	Activated	3.009	2.57E-18
MAPK14	kinase	Activated	3.008	4.95E-13
dihydrotestosterone	chemical - endogenous mammalian	Activated	2.996	1.36E-09
PI3K (complex)	complex	Activated	2.977	1.23E-15
IL27	cytokine	Activated	2.964	5.97E-12
CSF2	cytokine	Activated	2.963	6.17E-12
KITLG	growth factor	Activated	2.948	2.70E-08
cigarette smoke	chemical toxicant	Activated	2.942	1.72E-11
FN1	other	Activated	2.936	2.41E-10
ozone	chemical toxicant	Activated	2.929	1.99E-15
cytokine	group	Activated	2.919	2.53E-10
decitabine	chemical drug	Activated	2.911	2.26E-09
F2	peptidase	Activated	2.909	1.43E-10
IL-1R	group	Activated	2.908	4.03E-14
Jnk	group	Activated	2.902	1.82E-14
NFkB (family)	group	Activated	2.895	9.77E-14
IL6R	transmembrane receptor	Activated	2.889	3.69E-14

MYD88	other	Activated	2.887	3.86E-12
HGF	growth factor	Activated	2.873	1.23E-14
IL18	cytokine	Activated	2.867	4.41E-12
IL17A	cytokine	Activated	2.863	8.55E-22
P38 MAPK	group	Activated	2.853	1.90E-19
Akt	group	Activated	2.851	3.85E-11
hydrogen peroxide	chemical - endogenous mammalian	Activated	2.843	1.94E-10
AGT	growth factor	Activated	2.83	7.44E-18
CD40	transmembrane receptor	Activated	2.821	1.13E-08
CD40LG	cytokine	Activated	2.816	9.61E-07
doxorubicin	chemical drug	Activated	2.806	1.63E-07
ERK	group	Activated	2.802	1.91E-12
STAT1	transcription regulator	Activated	2.786	2.96E-17
STING1	other	Activated	2.783	2.02E-12
cholesterol	chemical - endogenous mammalian	Activated	2.78	3.71E-11
Ap1	complex	Activated	2.778	2.00E-15
CD36	transmembrane receptor	Activated	2.778	8.15E-12
IL1R1	transmembrane receptor	Activated	2.776	9.96E-14
platelet activating factor	chemical - endogenous mammalian	Activated	2.765	2.08E-14
Tlr	group	Activated	2.754	7.75E-10
BRD4	kinase	Activated	2.75	8.64E-10
RIGI	enzyme	Activated	2.745	2.57E-15
Vegf	group	Activated	2.738	1.91E-14
E. coli B4 lipopolysaccharide	chemical toxicant	Activated	2.735	9.65E-12
bleomycin	biologic drug	Activated	2.734	2.87E-10
kainic acid	chemical toxicant	Activated	2.709	5.35E-11
adavosertib	chemical drug	Activated	2.647	3.81E-15
cardiotoxin	chemical - other	Activated	2.646	2.37E-15
IFNG	cytokine	Activated	2.646	6.82E-14
ERBB2	kinase	Activated	2.646	1.07E-09
IL22	cytokine	Activated	2.623	1.94E-13
JAK2	kinase	Activated	2.621	2.83E-10
NfκB-RelA	complex	Activated	2.62	8.45E-19
E. coli B5 lipopolysaccharide	chemical - endogenous non-mammalian	Activated	2.614	1.49E-09
Pam3-Cys	chemical toxicant	Activated	2.61	3.31E-11
CD14	transmembrane receptor	Activated	2.61	1.55E-10
RELA	transcription regulator	Activated	2.608	2.73E-20
lysophosphatidic acid	chemical - other	Activated	2.602	8.70E-09
NfκB1-RelA	complex	Activated	2.6	6.98E-11
TNFSF13B	cytokine	Activated	2.598	1.20E-07
KLF6	transcription regulator	Activated	2.589	2.29E-09

CEBPB	transcription regulator	Activated	2.589	1.78E-14
ITGB1	transmembrane receptor	Activated	2.581	1.55E-11
MAPKAPK2	kinase	Activated	2.573	1.98E-10
tetradecanoylphorbol acetate	chemical drug	Activated	2.571	2.23E-16
D-galactosamine	chemical - endogenous mammalian	Activated	2.569	1.05E-10
Mek	group	Activated	2.569	1.39E-09
CEBPA	transcription regulator	Activated	2.561	8.19E-13
thioacetamide	chemical toxicant	Activated	2.554	3.58E-07
peptidoglycan	chemical - endogenous non-mammalian	Activated	2.54	2.85E-13
TLR9	transmembrane receptor	Activated	2.538	1.74E-12
D-glucose	chemical - endogenous mammalian	Activated	2.535	9.41E-08
CREB1	transcription regulator	Activated	2.527	2.82E-08
phytohemagglutinin	chemical drug	Activated	2.524	2.11E-11
concanavalin a	chemical drug	Activated	2.514	2.07E-12
SRC	kinase	Activated	2.502	1.58E-09
FOS	transcription regulator	Activated	2.49	1.54E-12
TNFSF12	cytokine	Activated	2.488	3.03E-08
imiquimod	chemical drug	Activated	2.475	1.02E-12
PIK3R1	kinase	Activated	2.463	3.08E-09
LDL	complex	Activated	2.451	2.68E-10
gentamicin C	chemical drug	Activated	2.449	1.62E-08
puromycin aminonucleoside	chemical reagent	Activated	2.449	4.21E-07
tetrabromobisphenol A	chemical toxicant	Activated	2.449	7.93E-09
HMG20A	transcription regulator	Activated	2.449	4.93E-07
MAVS	other	Activated	2.448	5.20E-14
IL15	cytokine	Activated	2.444	3.51E-06
YBX1	transcription regulator	Activated	2.442	6.42E-08
IRF3	transcription regulator	Activated	2.434	1.75E-10
triamterene	chemical drug	Activated	2.433	2.34E-08
ITGAV	transmembrane receptor	Activated	2.433	1.37E-10
MAP2K4	kinase	Activated	2.429	8.83E-09
Fcer1	complex	Activated	2.427	1.47E-08
3M-011	chemical reagent	Activated	2.425	2.54E-10
JUN	transcription regulator	Activated	2.424	3.85E-17
Pkc(s)	group	Activated	2.416	5.78E-09
PF-4878691	chemical drug	Activated	2.415	6.27E-10
TGM2	enzyme	Activated	2.414	9.51E-09
MAPT	other	Activated	2.413	3.76E-05

Stat3-Stat3	complex	Activated	2.412	7.11E-09
Aldose Reductase	group	Activated	2.412	1.28E-11
FGFR1	kinase	Activated	2.412	4.23E-08
IFN Beta	group	Activated	2.409	2.00E-13
calcimycin	chemical reagent	Activated	2.408	2.27E-08
FCER1G	transmembrane receptor	Activated	2.407	8.68E-10
sphingosine-1-phosphate	chemical - endogenous mammalian	Activated	2.406	1.44E-07
RIPK1	kinase	Activated	2.406	1.95E-08
S100A9	other	Activated	2.405	5.70E-06
CCL2	cytokine	Activated	2.403	3.12E-13
IGF1R	transmembrane receptor	Activated	2.401	1.80E-04
RAC1	enzyme	Activated	2.398	4.40E-14
TICAM1	other	Activated	2.396	1.67E-10
TLR5	transmembrane receptor	Activated	2.396	2.79E-08
PRKCE	kinase	Activated	2.391	5.81E-08
HMGB1	transcription regulator	Activated	2.388	1.99E-07
TLR4	transmembrane receptor	Activated	2.386	5.67E-11
1-palmitoyl-2-(5-oxovaleroyl)-sn-glycero-3-phosphorylcholine	chemical reagent	Activated	2.385	3.71E-10
MAP2K3	kinase	Activated	2.383	6.67E-10
Ca2+	chemical - endogenous mammalian	Activated	2.38	1.23E-06
salmonella minnesota R595 lipopolysaccharides	chemical - endogenous non-mammalian	Activated	2.38	7.38E-07
Growth hormone	group	Activated	2.38	1.57E-08
TBK1	kinase	Activated	2.375	4.68E-07
TAC1	other	Activated	2.373	1.19E-07
IL32	cytokine	Activated	2.368	5.96E-12
TLR2	transmembrane receptor	Activated	2.365	3.75E-12
TCR	complex	Activated	2.357	1.55E-11
NFAT5	transcription regulator	Activated	2.357	1.00E-11
TREM1	transmembrane receptor	Activated	2.355	9.87E-11
CSF1	cytokine	Activated	2.349	8.46E-12
paclitaxel	chemical drug	Activated	2.346	3.46E-12
TRAF6	enzyme	Activated	2.346	1.43E-09
MAPK8	kinase	Activated	2.336	1.16E-09
NOS2	enzyme	Activated	2.326	2.40E-12
beta-estradiol	chemical - endogenous mammalian	Activated	2.317	2.47E-19
8-bromo-cAMP	chemical reagent	Activated	2.289	6.33E-11
trinitrobenzenesulfonic acid	chemical reagent	Activated	2.286	2.71E-12

CREBBP	transcription regulator	Activated	2.257	8.09E-09
FGF2	growth factor	Activated	2.252	4.91E-11
PI3K (family)	group	Activated	2.244	1.71E-11
MTOR	kinase	Activated	2.241	4.04E-08
carboplatin	chemical drug	Activated	2.236	7.40E-07
lomustine	chemical drug	Activated	2.236	7.40E-07
2-bromoethylamine	chemical reagent	Activated	2.236	1.76E-07
molybdenum disulfide	chemical reagent	Activated	2.236	1.73E-06
Brd4	kinase	Activated	2.236	1.00E-05
FOXC1	transcription regulator	Activated	2.236	7.66E-05
SORL1	transporter	Activated	2.236	6.51E-06
lysophosphatidylcholine	chemical - other	Activated	2.235	3.22E-05
NRG1	growth factor	Activated	2.231	8.00E-05
poly dA-dT	chemical reagent	Activated	2.226	1.37E-08
IFNL1	cytokine	Activated	2.225	3.17E-06
sodium chloride	chemical - endogenous mammalian	Activated	2.224	1.99E-07
thapsigargin	chemical toxicant	Activated	2.221	2.89E-06
fenamic acid	chemical reagent	Activated	2.219	9.99E-07
hexachlorobenzene	chemical toxicant	Activated	2.219	3.81E-07
GNAI3	enzyme	Activated	2.219	1.99E-09
MAOA	enzyme	Activated	2.219	2.65E-08
S100A7	other	Activated	2.219	8.44E-10
EGFR	kinase	Activated	2.218	1.46E-12
PRL	cytokine	Activated	2.217	6.22E-11
TRAF3IP2	enzyme	Activated	2.217	1.52E-06
TIFA	other	Activated	2.216	2.97E-10
diethylnitrosamine	chemical toxicant	Activated	2.215	2.51E-07
MAPK7	kinase	Activated	2.215	3.17E-06
Lymphotoxin	complex	Activated	2.213	1.99E-09
PIN1	enzyme	Activated	2.213	7.28E-08
RNASE1	enzyme	Activated	2.213	1.99E-09
SELP	transmembrane receptor	Activated	2.213	4.13E-08
MAP3K1	kinase	Activated	2.208	2.90E-07
D-fructose	chemical - endogenous mammalian	Activated	2.207	2.73E-09
CXCR4	G-protein coupled receptor	Activated	2.201	2.79E-08
RAS	group	Activated	2.201	2.01E-09
C1QA	other	Activated	2.201	2.27E-08
TRADD	other	Activated	2.2	1.14E-08
ELANE	peptidase	Activated	2.198	1.02E-07
HOTAIR	other	Activated	2.197	3.49E-07
monophosphoryl lipid A	chemical drug	Activated	2.195	4.32E-10
AIMP1	cytokine	Activated	2.195	2.97E-10
GIP	other	Activated	2.195	4.94E-07
IL26	cytokine	Activated	2.191	1.26E-11
TIRAP	other	Activated	2.191	2.08E-10
bromodeoxyuridine	chemical drug	Activated	2.19	2.63E-07
TIMP1	cytokine	Activated	2.19	1.28E-07
Nfat (family)	group	Activated	2.19	7.99E-06
BTK	kinase	Activated	2.19	6.69E-07

reactive oxygen species	chemical toxicant	Activated	2.189	2.25E-05
5-O-mycolyl-beta-araf-(1->2)-5-O-mycolyl-alpha-araf-(1->1')-glycerol	chemical - endogenous non-mammalian	Activated	2.186	2.82E-06
FOXM1	transcription regulator	Activated	2.186	1.75E-08
F2RL1	G-protein coupled receptor	Activated	2.185	9.32E-09
tetrachlorodibenzodioxin	chemical toxicant	Activated	2.184	5.44E-11
CCN1	other	Activated	2.184	3.08E-09
RELB	transcription regulator	Activated	2.184	1.34E-06
PTK2	kinase	Activated	2.183	6.77E-12
STAT2	transcription regulator	Activated	2.183	5.83E-07
cyclophosphamide	chemical drug	Activated	2.182	2.14E-09
S-(2,3-bisphosphatidyl)-cysteine-GDPKHPKSF	chemical reagent	Activated	2.182	4.13E-09
PDGF BB	complex	Activated	2.182	3.14E-04
advanced glycation end-products	chemical - endogenous mammalian	Activated	2.177	7.93E-09
THPO	cytokine	Activated	2.177	7.27E-06
JAK1	kinase	Activated	2.177	4.98E-08
enterotoxin B	biologic drug	Activated	2.174	6.76E-08
IFIH1	enzyme	Activated	2.165	2.39E-07
RETN	other	Activated	2.161	1.47E-08
hemozoin	chemical - endogenous non-mammalian	Activated	2.156	1.14E-08
E. coli lipopolysaccharide	chemical - endogenous non-mammalian	Activated	2.155	2.18E-11
STAT4	transcription regulator	Activated	2.155	3.04E-05
lipid A	chemical toxicant	Activated	2.15	1.14E-07
CpG oligonucleotide	chemical drug	Activated	2.149	1.05E-09
hyaluronic acid	chemical - endogenous mammalian	Activated	2.14	5.78E-13
Fc gamma receptor	group	Activated	2.14	2.08E-10
PTAFR	G-protein coupled receptor	Activated	2.127	4.13E-09
PLX5622	chemical drug	Activated	2.121	3.49E-08
RNASE2	enzyme	Activated	2.108	5.54E-12
etoposide	chemical drug	Activated	2.103	5.24E-11
IRAK4	kinase	Activated	2.102	6.27E-08
ADAM17	peptidase	Activated	2.102	7.10E-08
uric acid	chemical - endogenous mammalian	Activated	2.098	4.86E-11
CTNNB1	transcription regulator	Activated	2.098	8.10E-10
FCGR2A	transmembrane receptor	Activated	2.095	1.71E-12
carbon tetrachloride	chemical toxicant	Activated	2.085	4.81E-11
IL13	cytokine	Activated	2.085	3.64E-15

IL3	cytokine	Activated	2.08	3.20E-06
Pam3-Cys-Ser-Lys4	chemical reagent	Activated	2.077	3.06E-08
CpG ODN 1668	chemical reagent	Activated	2.07	1.55E-10
NFKB1	transcription regulator	Activated	2.063	4.13E-18
TLR7	transmembrane receptor	Activated	2.062	9.61E-08
CD28	transmembrane receptor	Activated	2.061	4.02E-05
S100A8	other	Activated	2.057	2.70E-08
IFI16	transcription regulator	Activated	2.057	5.45E-11
METTL3	enzyme	Activated	2.056	6.84E-05
RIPK2	kinase	Activated	2.054	6.75E-08
FASLG	cytokine	Activated	2.052	3.52E-09
CCL5	cytokine	Activated	2.047	1.96E-06
10E,12Z-octadecadienoic acid	chemical - endogenous mammalian	Activated	2.045	2.31E-07
CCL11	cytokine	Activated	2.039	2.29E-12
C3	peptidase	Activated	2.035	3.13E-16
VEGFA	growth factor	Activated	2.03	4.83E-10
SMAD3	transcription regulator	Activated	2.028	3.78E-19
E. coli serotype 0127B8 lipopolysaccharide	chemical - endogenous non-mammalian	Activated	2.023	5.04E-07
MAPK3	kinase	Activated	2.017	3.42E-15
CG	complex	Activated	2.012	1.65E-10
YAP1	transcription regulator	Activated	2.003	1.34E-10
PF4	cytokine	Activated	2.001	4.49E-11
lipoarabinomannan	chemical - endogenous non-mammalian	Activated	2	3.54E-07
poly-L-lysine	chemical reagent	Activated	2	2.91E-08
NFAT (complex)	complex	Activated	2	6.95E-07
RNF138	enzyme	Activated	2	4.24E-07
ELOVL3	enzyme	Activated	2	3.53E-05
LOXL1	enzyme	Activated	2	1.23E-07
ACSL4	enzyme	Activated	2	2.06E-05
ZFTA-RELA	fusion gene/product	Activated	2	1.43E-07
PTGER1	G-protein coupled receptor	Activated	2	1.28E-10
ADORA3	G-protein coupled receptor	Activated	2	2.40E-07
MRGPRX3	G-protein coupled receptor	Activated	2	5.70E-06
SYK/ZAP	group	Activated	2	2.29E-06
KCNJ10	ion channel	Activated	2	1.95E-07
CDKN2B-AS1	other	Activated	2	5.54E-08
DOCK8	other	Activated	2	3.34E-05
TLN1	other	Activated	2	1.08E-06
CYLD-AS1	other	Activated	2	2.65E-05
ETS2	transcription regulator	Activated	2	4.62E-05

10-nitrooleate	chemical - endogenous mammalian	Inhibited	-2	7.37E-08
Ac-YVAD-CMK	chemical - protease inhibitor	Inhibited	-2	8.60E-09
candesartan	chemical drug	Inhibited	-2	2.17E-07
pimagedine	chemical drug	Inhibited	-2	6.20E-08
aprepitant	chemical drug	Inhibited	-2	2.86E-06
brusatol	chemical reagent	Inhibited	-2	2.91E-08
AS1842856	chemical reagent	Inhibited	-2	2.57E-06
LAMA4	enzyme	Inhibited	-2	9.80E-05
FKBP10	enzyme	Inhibited	-2	1.94E-05
STK3	kinase	Inhibited	-2	9.62E-08
miR-4679 (miRNAs w/seed CUGUGAU)	mature microRNA	Inhibited	-2	3.69E-02
miR-302f (miRNAs w/seed AAUUGCU)	mature microRNA	Inhibited	-2	1.42E-02
miR-1b-5p (miRNAs w/seed ACAUACU)	mature microRNA	Inhibited	-2	1.80E-02
miR-888-3p (miRNAs w/seed ACUGACA)	mature microRNA	Inhibited	-2	1.56E-02
miR-3605-3p (miRNAs w/seed CUCCGUG)	mature microRNA	Inhibited	-2	1.85E-02
miR-680 (miRNAs w/seed GGCAUCU)	mature microRNA	Inhibited	-2	3.93E-02
miR-3063-3p (miRNAs w/seed GAGGAU)	mature microRNA	Inhibited	-2	3.34E-02
miR-4682 (miRNAs w/seed CUGAGUU)	mature microRNA	Inhibited	-2	3.78E-02
miR-142b (miRNAs w/seed CCAUAAA)	mature microRNA	Inhibited	-2	1.17E-02
miR-3924 (miRNAs w/seed UAUGUAU)	mature microRNA	Inhibited	-2	1.80E-02
miR-3144-3p (miRNAs w/seed UAUACCU)	mature microRNA	Inhibited	-2	1.54E-02
miR-1234-3p (and other miRNAs w/seed CGGCCUG)	mature microRNA	Inhibited	-2	4.65E-02
miR-4694-3p (miRNAs w/seed AAAUGGA)	mature microRNA	Inhibited	-2	4.84E-02
miR-2117 (miRNAs w/seed GUUCUCU)	mature microRNA	Inhibited	-2	2.50E-02
miR-4639-5p (miRNAs w/seed UGCUAAG)	mature microRNA	Inhibited	-2	2.21E-02
miR-5108 (miRNAs w/seed UAGAGCA)	mature microRNA	Inhibited	-2	2.28E-02
miR-924 (miRNAs w/seed GAGUCUU)	mature microRNA	Inhibited	-2	4.60E-02
miR-5692a (miRNAs w/seed AAUUAU)	mature microRNA	Inhibited	-2	2.16E-04
miR-3473f (miRNAs w/seed AAUAGG)	mature microRNA	Inhibited	-2	4.57E-03
miR-7108-5p (miRNAs w/seed UGUGGCC)	mature microRNA	Inhibited	-2	4.95E-02
miR-6991-3p (miRNAs w/seed CAGCCCU)	mature microRNA	Inhibited	-2	1.49E-02
miR-6800-5p (miRNAs w/seed UAGGUGA)	mature microRNA	Inhibited	-2	2.32E-02

miR-6959-3p (miRNAs w/seed UGCACCG)	mature microRNA	Inhibited	-2	2.20E-02
miR-8060 (miRNAs w/seed CAUGAAG)	mature microRNA	Inhibited	-2	2.94E-02
INSIG1	other	Inhibited	-2	2.02E-04
SAFB	other	Inhibited	-2	1.28E-05
SP110	transcription regulator	Inhibited	-2	5.14E-04
PTEN	phosphatase	Inhibited	-2.042	1.06E-10
Z-LLL-CHO	chemical - protease inhibitor	Inhibited	-2.05	2.55E-10
prednisolone	chemical drug	Inhibited	-2.057	2.66E-07
aspirin	chemical drug	Inhibited	-2.072	4.09E-14
miR-4789-3p (miRNAs w/seed ACACAUA)	mature microRNA	Inhibited	-2.121	5.88E-05
vorinostat	chemical drug	Inhibited	-2.128	1.08E-06
pyrrolidine dithiocarbamate	chemical reagent	Inhibited	-2.138	3.79E-08
celecoxib	chemical drug	Inhibited	-2.151	1.94E-05
valsartan	chemical drug	Inhibited	-2.155	1.20E-08
minocycline	chemical drug	Inhibited	-2.163	1.96E-06
miR-21-5p (and other miRNAs w/seed AGCUUUAU)	mature microRNA	Inhibited	-2.169	4.69E-02
Sb202190	chemical drug	Inhibited	-2.173	4.19E-17
bardoxolone methyl	chemical drug	Inhibited	-2.176	1.37E-08
wortmannin	chemical drug	Inhibited	-2.177	4.00E-13
TREX1	enzyme	Inhibited	-2.177	3.02E-06
LILRB4	other	Inhibited	-2.177	4.13E-08
NLRP12	other	Inhibited	-2.18	4.13E-08
Go 6976	chemical drug	Inhibited	-2.181	2.14E-08
EIF4EBP1	translation regulator	Inhibited	-2.183	1.09E-08
EIF4EBP2	translation regulator	Inhibited	-2.183	1.93E-08
diphenyleneiodonium	chemical reagent	Inhibited	-2.184	5.38E-08
GPS2	transcription regulator	Inhibited	-2.186	9.29E-07
thalidomide	chemical drug	Inhibited	-2.19	7.98E-08
SLPI	other	Inhibited	-2.19	1.14E-08
SCD	enzyme	Inhibited	-2.191	5.94E-11
BCL3	transcription regulator	Inhibited	-2.193	1.56E-11
USP18	peptidase	Inhibited	-2.195	4.54E-07
luteolin	chemical drug	Inhibited	-2.199	9.81E-09
caffeic acid phenethyl ester	chemical drug	Inhibited	-2.205	3.98E-07
KLF2	transcription regulator	Inhibited	-2.205	1.47E-09
apigenin	chemical - endogenous non-mammalian	Inhibited	-2.207	9.69E-08
ZFP36	transcription regulator	Inhibited	-2.209	2.98E-12
bezafibrate	chemical drug	Inhibited	-2.213	6.61E-06
DICER1	enzyme	Inhibited	-2.213	1.82E-05
CLEC10A	other	Inhibited	-2.213	6.20E-08

tofacitinib	chemical drug	Inhibited	-2.215	1.37E-08
(S,R)-3-(4-hydroxyphenyl)-4,5-dihydro-5-isoxazole acetic acid, methyl ester	chemical reagent	Inhibited	-2.216	6.20E-08
101.10 peptide	chemical reagent	Inhibited	-2.216	4.32E-10
napabucasin	chemical drug	Inhibited	-2.219	1.24E-06
(+)-MK-801	chemical drug	Inhibited	-2.219	2.22E-06
bempedoic acid	chemical drug	Inhibited	-2.219	1.28E-10
COP1	enzyme	Inhibited	-2.219	1.84E-06
IMMT	other	Inhibited	-2.219	5.44E-08
tosylphenylalanyl chloromethyl ketone	chemical - protease inhibitor	Inhibited	-2.228	5.16E-09
erythromycin	chemical drug	Inhibited	-2.229	4.32E-10
roflumilast N-oxide	chemical - endogenous mammalian	Inhibited	-2.236	7.89E-11
miR-4471 (and other miRNAs w/seed GGGAACU)	mature microRNA	Inhibited	-2.236	3.03E-02
miR-4659a-5p (and other miRNAs w/seed UGCCAUG)	mature microRNA	Inhibited	-2.236	4.63E-02
miR-1-5p (and other miRNAs w/seed CAUACUU)	mature microRNA	Inhibited	-2.236	4.14E-02
miR-494-3p (miRNAs w/seed GAAACAU)	mature microRNA	Inhibited	-2.236	3.85E-02
miR-512-5p (miRNAs w/seed ACUCAGC)	mature microRNA	Inhibited	-2.236	1.34E-02
miR-511-5p (miRNAs w/seed UGUCUUU)	mature microRNA	Inhibited	-2.236	1.27E-03
miR-29b-1-5p (miRNAs w/seed CUGGUUU)	mature microRNA	Inhibited	-2.236	2.33E-02
miR-467a-5p (and other miRNAs w/seed AAGUGCC)	mature microRNA	Inhibited	-2.236	2.47E-02
miR-4257 (miRNAs w/seed CAGAGGU)	mature microRNA	Inhibited	-2.236	3.94E-02
miR-4727-3p (miRNAs w/seed UAGUGGG)	mature microRNA	Inhibited	-2.236	4.80E-02
miR-4729 (miRNAs w/seed CAUUUUAU)	mature microRNA	Inhibited	-2.236	2.22E-03
miR-3913-5p (and other miRNAs w/seed UUGGGAC)	mature microRNA	Inhibited	-2.236	4.30E-03
miR-1958 (miRNAs w/seed AGGAAAG)	mature microRNA	Inhibited	-2.236	1.92E-02
miR-33-3p (and other miRNAs w/seed AAUGUUU)	mature microRNA	Inhibited	-2.236	1.06E-02
miR-4422 (miRNAs w/seed AAAGCAU)	mature microRNA	Inhibited	-2.236	4.39E-03
miR-3073a-3p (miRNAs w/seed UGAUGUC)	mature microRNA	Inhibited	-2.236	1.63E-02
miR-4302 (miRNAs w/seed CAGUGUG)	mature microRNA	Inhibited	-2.236	2.44E-02
miR-423-3p (miRNAs w/seed GCUCGGU)	mature microRNA	Inhibited	-2.236	4.80E-02

miR-5118 (miRNAs w/seed AGGUUAG)	mature microRNA	Inhibited	-2.236	6.51E-03
miR-5691 (and other miRNAs w/seed UGCUCUG)	mature microRNA	Inhibited	-2.236	3.66E-02
miR-6846-3p (miRNAs w/seed GACCCCU)	mature microRNA	Inhibited	-2.236	2.65E-02
miR-6933-3p (miRNAs w/seed GGUGUUU)	mature microRNA	Inhibited	-2.236	3.36E-02
miR-6903-3p (miRNAs w/seed GUGUGUC)	mature microRNA	Inhibited	-2.236	4.12E-02
miR-6809-3p (miRNAs w/seed UUCUCUU)	mature microRNA	Inhibited	-2.236	3.36E-02
SPRY2	other	Inhibited	-2.236	1.00E-05
CBX5	transcription regulator	Inhibited	-2.236	2.17E-05
SFTPA1	transporter	Inhibited	-2.291	5.81E-08
miR-204-5p (and other miRNAs w/seed UCCCUUU)	mature microRNA	Inhibited	-2.333	7.23E-03
miR-499-5p (and other miRNAs w/seed UAAGACU)	mature microRNA	Inhibited	-2.333	6.89E-05
miR-323-5p (and other miRNAs w/seed GGUGGUC)	mature microRNA	Inhibited	-2.345	8.51E-03
miR-3097-5p (and other miRNAs w/seed ACAGGUG)	mature microRNA	Inhibited	-2.345	1.70E-02
IL37	cytokine	Inhibited	-2.352	3.15E-11
NS-398	chemical reagent	Inhibited	-2.353	3.53E-10
miR-146a-5p (and other miRNAs w/seed GAGAACU)	mature microRNA	Inhibited	-2.355	2.00E-03
simvastatin	chemical drug	Inhibited	-2.358	1.54E-20
BAPTA-AM	chemical reagent	Inhibited	-2.37	1.98E-10
rottlerin	chemical drug	Inhibited	-2.383	6.76E-08
JQ1	chemical reagent	Inhibited	-2.383	1.10E-05
cerivastatin	chemical drug	Inhibited	-2.391	4.79E-13
N-[N-(3,5-difluorophenacetyl-L-Ala)]-S-phenylglycine t-butyl ester	chemical - protease inhibitor	Inhibited	-2.392	6.06E-07
PP2/AG1879 tyrosine kinase inhibitor	chemical drug	Inhibited	-2.4	2.84E-09
miR-2682-5p (and other miRNAs w/seed AGGCAGU)	mature microRNA	Inhibited	-2.4	4.31E-02
15-deoxy-delta-12,14 -PGJ 2	chemical - endogenous mammalian	Inhibited	-2.401	1.69E-15
losartan potassium	chemical drug	Inhibited	-2.401	6.03E-07
let-7	microRNA	Inhibited	-2.401	3.13E-06
imatinib	chemical drug	Inhibited	-2.404	3.07E-05
niacinamide	chemical - endogenous mammalian	Inhibited	-2.408	1.99E-07
calphostin C	chemical drug	Inhibited	-2.425	5.44E-10

miR-148a-5p (and other miRNAs w/seed AAGUUCU)	mature microRNA	Inhibited	-2.425	1.04E-02
miR-9-5p (and other miRNAs w/seed CUUUGGU)	mature microRNA	Inhibited	-2.425	3.70E-02
miR-374b-5p (and other miRNAs w/seed UAUAUA)	mature microRNA	Inhibited	-2.429	1.02E-03
Sn50 peptide	chemical toxicant	Inhibited	-2.43	7.44E-14
CISH	other	Inhibited	-2.433	5.38E-08
TP73	transcription regulator	Inhibited	-2.437	5.23E-10
miR-3201 (and other miRNAs w/seed GGAUAUG)	mature microRNA	Inhibited	-2.449	1.75E-02
miR-936 (miRNAs w/seed CAGUAGA)	mature microRNA	Inhibited	-2.449	8.72E-03
miR-151-3p (and other miRNAs w/seed UAGACUG)	mature microRNA	Inhibited	-2.449	3.47E-02
miR-208a-3p (and other miRNAs w/seed UAAGACG)	mature microRNA	Inhibited	-2.449	1.12E-02
miR-466 (miRNAs w/seed UACACAU)	mature microRNA	Inhibited	-2.449	5.29E-03
miR-3558-3p (and other miRNAs w/seed CUGUGGA)	mature microRNA	Inhibited	-2.449	2.68E-02
miR-425-5p (and other miRNAs w/seed AUGACAC)	mature microRNA	Inhibited	-2.449	3.11E-02
miR-642a-3p (and other miRNAs w/seed GACACAU)	mature microRNA	Inhibited	-2.449	3.08E-03
miR-5003-5p (miRNAs w/seed CACAACA)	mature microRNA	Inhibited	-2.449	3.89E-03
miR-6834-5p (miRNAs w/seed UGAGGGA)	mature microRNA	Inhibited	-2.449	1.49E-02
miR-6927-3p (and other miRNAs w/seed CUGAGCU)	mature microRNA	Inhibited	-2.449	1.33E-02
miR-6735-3p (miRNAs w/seed GGCCUGU)	mature microRNA	Inhibited	-2.449	2.75E-02
miR-7652-3p (and other miRNAs w/seed CUGGCUU)	mature microRNA	Inhibited	-2.449	3.47E-02
miR-4747-5p (and other miRNAs w/seed GGGAAGG)	mature microRNA	Inhibited	-2.53	3.94E-02
miR-12194-3p (and other miRNAs w/seed CUGUGGG)	mature microRNA	Inhibited	-2.53	3.88E-02
miR-3150a-3p (and other miRNAs w/seed UGGGGAG)	mature microRNA	Inhibited	-2.554	4.37E-02
triptolide	chemical drug	Inhibited	-2.57	1.45E-13
atorvastatin	chemical drug	Inhibited	-2.575	4.43E-10

CITED2	transcription regulator	Inhibited	-2.592	1.99E-06
MCC950	chemical reagent	Inhibited	-2.611	4.87E-13
mir-146	microRNA	Inhibited	-2.611	1.78E-08
miR-130b-5p (and other miRNAs w/seed CUCUUUC)	mature microRNA	Inhibited	-2.621	1.57E-02
miR-34a-3p (and other miRNAs w/seed AUCAGCA)	mature microRNA	Inhibited	-2.646	2.63E-02
miR-1969 (miRNAs w/seed AGAUGGA)	mature microRNA	Inhibited	-2.646	2.29E-03
miR-589-3p (and other miRNAs w/seed CAGAACA)	mature microRNA	Inhibited	-2.646	2.97E-02
miR-644a (miRNAs w/seed GUGUGGC)	mature microRNA	Inhibited	-2.646	1.13E-02
miR-7063-5p (miRNAs w/seed UGAGAGG)	mature microRNA	Inhibited	-2.646	1.46E-02
miR-6901-5p (miRNAs w/seed GCAGGAA)	mature microRNA	Inhibited	-2.714	3.51E-02
U0126	chemical drug	Inhibited	-2.732	1.93E-12
fenofibrate	chemical drug	Inhibited	-2.737	3.07E-08
IL1RN	cytokine	Inhibited	-2.75	6.40E-11
dexmedetomidine	chemical drug	Inhibited	-2.754	5.50E-14
miR-4276 (and other miRNAs w/seed UCAGUGA)	mature microRNA	Inhibited	-2.813	3.50E-02
miR-449b-3p (and other miRNAs w/seed AGCCACA)	mature microRNA	Inhibited	-2.813	3.23E-02
miR-495-3p (and other miRNAs w/seed AACAAAC)	mature microRNA	Inhibited	-2.828	5.72E-04
miR-3190-3p (and other miRNAs w/seed GUGGAAG)	mature microRNA	Inhibited	-2.828	4.42E-02
miR-4499 (and other miRNAs w/seed AGACUGA)	mature microRNA	Inhibited	-2.828	9.65E-04
miR-1247-3p (and other miRNAs w/seed GGGAACG)	mature microRNA	Inhibited	-2.828	1.12E-02
miR-342-3p (miRNAs w/seed CUCACAC)	mature microRNA	Inhibited	-2.828	4.51E-03
miR-3529-3p (miRNAs w/seed ACAACAA)	mature microRNA	Inhibited	-2.828	2.02E-04
N-acetyl-L-cysteine	chemical drug	Inhibited	-2.843	3.63E-12
LY294002	chemical drug	Inhibited	-2.893	5.25E-14
curcumin	chemical drug	Inhibited	-2.943	7.32E-07
tyrphostin AG490	chemical drug	Inhibited	-2.955	6.85E-12
Alpha catenin	group	Inhibited	-2.959	7.44E-13
SP600125	chemical drug	Inhibited	-2.992	1.74E-14
troglitazone	chemical drug	Inhibited	-2.996	6.07E-14
miR-3093-3p (and other miRNAs w/seed GUGGACA)	mature microRNA	Inhibited	-3	3.02E-02

miR-185-3p (and other miRNAs w/seed GGGGCUG)	mature microRNA	Inhibited	-3.02	2.61E-02
miR-12185-3p (and other miRNAs w/seed CAGCCAC)	mature microRNA	Inhibited	-3.162	9.07E-03
miR-3103-5p (and other miRNAs w/seed GAGGGAG)	mature microRNA	Inhibited	-3.357	3.48E-02
PD98059	chemical - kinase inhibitor	Inhibited	-3.359	5.00E-16
let-7a-5p (and other miRNAs w/seed GAGGUAG)	mature microRNA	Inhibited	-3.377	2.04E-03
miR-34a-5p (and other miRNAs w/seed GGCAGUG)	mature microRNA	Inhibited	-3.395	3.15E-02
SB203580	chemical drug	Inhibited	-3.565	4.48E-20

Table S6

Functional analysis of tissue biomarkers: upstream regulators described by $-\log(p\text{-value})$ and z-score value.

Upstream Regulator	Molecule Type	Predicted Activation State	Activation z-score	p-value of overlap
tetradecanoylphorbol acetate	chemical drug	Activated	2.585	1.25E-04
IL6	cytokine	Activated	2.54	1.03E-05
TNF	cytokine	Activated	2.512	1.67E-07
P38 MAPK	group	Activated	2.2	2.98E-05
lipopolysaccharide	chemical drug	Activated	2.122	8.70E-05
AGT	growth factor	Activated	2.085	2.38E-05
ALOX5	enzyme	Activated	2	2.53E-04
miR-145a-3p (miRNAs w/seed UUCCUGG)	mature microRNA	Inhibited	-2	7.78E-03
miR-3169 (miRNAs w/seed AGGACUG)	mature microRNA	Inhibited	-2	3.86E-03
miR-7668-3p (miRNAs w/seed GGUGCAG)	mature microRNA	Inhibited	-2	1.07E-02
miR-7066-5p (miRNAs w/seed GGGUUGG)	mature microRNA	Inhibited	-2	1.56E-02
miR-6781-5p (miRNAs w/seed GGGCCGG)	mature microRNA	Inhibited	-2	9.65E-03
miR-6857-5p (miRNAs w/seed UGGGGAU)	mature microRNA	Inhibited	-2	1.88E-02
miR-423-5p (and other miRNAs w/seed GAGGGGC)	mature microRNA	Inhibited	-2.157	4.68E-03
HNF4A	transcription regulator	Inhibited	-2.2	1.62E-02
miR-3199 (and other miRNAs w/seed GGGACUG)	mature microRNA	Inhibited	-2.219	3.74E-02
miR-10396b-5p (and other miRNAs w/seed GGCGGGG)	mature microRNA	Inhibited	-2.219	3.74E-02
miR-7676-5p (miRNAs w/seed GGGCAGU)	mature microRNA	Inhibited	-2.236	6.37E-03
miR-323-5p (and other miRNAs w/seed GGUGGUC)	mature microRNA	Inhibited	-2.236	8.57E-03
miR-92a-1-5p (miRNAs w/seed GGUUGGG)	mature microRNA	Inhibited	-2.236	4.26E-02
miR-3154 (miRNAs w/seed AGAAGGG)	mature microRNA	Inhibited	-2.236	2.42E-02
miR-1914-3p (and other miRNAs w/seed GAGGGGU)	mature microRNA	Inhibited	-2.236	1.03E-02
miR-6734-5p (and other miRNAs w/seed UGAGGGG)	mature microRNA	Inhibited	-2.425	1.50E-02
miR-4254 (and other miRNAs w/seed CCUGGAG)	mature microRNA	Inhibited	-2.433	3.22E-03
miR-34a-5p (and other miRNAs w/seed GGCAGUG)	mature microRNA	Inhibited	-2.449	4.96E-02
miR-5107-5p (miRNAs w/seed GGGCAGA)	mature microRNA	Inhibited	-2.449	5.78E-03

miR-1953 (and other miRNAs w/seed GGGAAAG)	mature microRNA	Inhibited	-2.449	8.72E-03
miR-342-5p (and other miRNAs w/seed GGGGUGC)	mature microRNA	Inhibited	-2.449	2.14E-02

Table S7

Unique upstream regulators predicted in fluid biomarker analysis by IPA tool.

Unique upstream regulators in fluid biomarker analysis
IL1
IL1B
cisplatin
poly rI:rC-RNA
HIF1A
CHUK
LEP
NFkB (complex)
OSM
PDGFB
Tnf (family)
ERK1/2
IKBKB
IL33
IL2
IL1A
TLR3
HRAS
APP
CD3
ionomycin
IL12 (complex)
Ige
IL4
C5
STAT3
MAPK14
dihydrotestosterone
PI3K (complex)
IL27
CSF2
KITLG
cigarette smoke
FN1
ozone
cytokine
decitabine
F2
IL-1R
Jnk
NFkB (family)
IL6R

MYD88
HGF
IL18
IL17A
Akt
hydrogen peroxide
CD40
CD40LG
doxorubicin
ERK
STAT1
STING1
cholesterol
CD36
Ap1
IL1R1
platelet activating factor
Tlr
BRD4
RIGI
Vegf
E. coli B4 lipopolysaccharide
bleomycin
kainic acid
adavosertib
ERBB2
IFNG
cardiotoxin
IL22
JAK2
Nfkb-RelA
E. coli B5 lipopolysaccharide
Pam3-Cys
CD14
RELA
lysophosphatidic acid
Nfkb1-RelA
TNFSF13B
KLF6
CEBPB
ITGB1
MAPKAPK2
Mek
D-galactosamine
CEBPA
thioacetamide
peptidoglycan

TLR9
D-glucose
CREB1
phytohemagglutinin
concanavalin a
SRC
FOS
TNFSF12
imiquimod
PIK3R1
LDL
tetrabromobisphenol A
HMG20A
gentamicin C
puromycin aminonucleoside
MAVS
IL15
YBX1
IRF3
ITGAV
triamterene
MAP2K4
Fcer1
3M-011
JUN
Pkc(s)
PF-4878691
TGM2
MAPT
Aldose Reductase
Stat3-Stat3
FGFR1
IFN Beta
calcimycin
FCER1G
sphingosine-1-phosphate
RIPK1
S100A9
CCL2
IGF1R
RAC1
TLR5
TICAM1
PRKCE
HMGB1
TLR4
1-palmitoyl-2-(5-oxovaleroyl)-sn-glycero-3-phosphorylcholine

MAP2K3
salmonella minnesota R595 lipopolysaccharides
Growth hormone
Ca ²⁺
TBK1
TAC1
IL32
TLR2
NFAT5
TCR
TREM1
CSF1
TRAF6
paclitaxel
MAPK8
NOS2
beta-estradiol
8-bromo-cAMP
trinitrobenzenesulfonic acid
CREBBP
FGF2
PI3K (family)
MTOR
FOXC1
SORL1
2-bromoethylamine
Brd4
carboplatin
lomustine
molybdenum disulfide
lysophosphatidylcholine
NRG1
poly dA-dT
IFNL1
sodium chloride
thapsigargin
hexachlorobenzene
GNAI3
MAOA
S100A7
fenamic acid
EGFR
PRL
TRAF3IP2
TIFA
MAPK7
diethylnitrosamine

Lymphotoxin
PIN1
RNASE1
SELP
MAP3K1
D-fructose
CXCR4
RAS
C1QA
TRADD
ELANE
HOTAIR
GIP
AIMP1
monophosphoryl lipid A
TIRAP
IL26
BTK
bromodeoxyuridine
Nfat (family)
TIMP1
reactive oxygen species
5-O-mycolyl-beta-araf-(1->2)-5-O-mycolyl-alpha-araf-(1->1')-glycerol
FOXM1
F2RL1
RELB
tetrachlorodibenzodioxin
CCN1
PTK2
STAT2
S-(2,3-bispalmitoyloxypropyl)-cysteine-GDPKHPKSF
PDGF BB
cyclophosphamide
JAK1
THPO
advanced glycation end-products
enterotoxin B
IFIH1
RETN
hemozoin
STAT4
E. coli lipopolysaccharide
lipid A
CpG oligonucleotide
hyaluronic acid
Fc gamma receptor
PTAFR

PLX5622
RNASE2
etoposide
ADAM17
IRAK4
uric acid
CTNNB1
FCGR2A
IL13
carbon tetrachloride
IL3
Pam3-Cys-Ser-Lys4
CpG ODN 1668
NFKB1
TLR7
CD28
S100A8
IFI16
METTL3
RIPK2
FASLG
CCL5
10E,12Z-octadecadienoic acid
CCL11
C3
VEGFA
SMAD3
E. coli serotype 0127B8 lipopolysaccharide
MAPK3
CG
YAP1
PF4
SYK/ZAP
NFAT (complex)
CDKN2B-AS1
DOCK8
RNF138
ELOVL3
LOXL1
TLN1
KCNJ10
ACSL4
ETS2
PTGER1
ADORA3
CYLD-AS1
MRGPRX3

ZFTA-RELA
poly-L-lysine
lipoarabinomannan
miR-4679 (miRNAs w/seed CUGUGAU)
miR-302f (miRNAs w/seed AAUUGCU)
miR-1b-5p (miRNAs w/seed ACAUACU)
miR-888-3p (miRNAs w/seed ACUGACA)
miR-3605-3p (miRNAs w/seed CUCCGUG)
miR-680 (miRNAs w/seed GGCAUCU)
miR-3063-3p (miRNAs w/seed GAGGAAU)
miR-4682 (miRNAs w/seed CUGAGUU)
miR-142b (miRNAs w/seed CCAUAAA)
miR-3924 (miRNAs w/seed UAUGUUAU)
miR-3144-3p (miRNAs w/seed UAUACCU)
miR-1234-3p (and other miRNAs w/seed CGGCCUG)
miR-4694-3p (miRNAs w/seed AAAUGGA)
miR-2117 (miRNAs w/seed GUUCUCU)
miR-4639-5p (miRNAs w/seed UGCUAAG)
miR-5108 (miRNAs w/seed UAGAGCA)
miR-924 (miRNAs w/seed GAGUCUU)
miR-5692a (miRNAs w/seed AAAUAAU)
STK3
LAMA4
INSIG1
10-nitrooleate
miR-3473f (miRNAs w/seed AAAUAGG)
miR-7108-5p (miRNAs w/seed UGUGGCC)
miR-6991-3p (miRNAs w/seed CAGCCCU)
miR-6800-5p (miRNAs w/seed UAGGUGA)
miR-6959-3p (miRNAs w/seed UGCACCG)
miR-8060 (miRNAs w/seed CAUGAAG)
FKBP10
SAFB
SP110
brusatol
AS1842856
candesartan
pimagedine
aprepitant
Ac-YVAD-CMK
PTEN
Z-LLL-CHO
prednisolone
aspirin
miR-4789-3p (miRNAs w/seed ACACAUA)
vorinostat
pyrrolidine dithiocarbamate

celecoxib
valsartan
minocycline
miR-21-5p (and other miRNAs w/seed AGCUUAAU)
Sb202190
bardoxolone methyl
TREX1
wortmannin
LILRB4
NLRP12
Go 6976
EIF4EBP1
EIF4EBP2
diphenyleneiodonium
GPS2
thalidomide
SLPI
SCD
BCL3
USP18
luteolin
KLF2
caffeic acid phenethyl ester
apigenin
ZFP36
CLEC10A
DICER1
bezafibrate
tofacitinib
(S,R)-3-(4-hydroxyphenyl)-4,5-dihydro-5-isoxazole acetic acid, methyl ester
101.10 peptide
IMMT
COP1
napabucasin
(+)-MK-801
bempedoic acid
tosylphenylalanyl chloromethyl ketone
erythromycin
miR-4471 (and other miRNAs w/seed GGGAACU)
miR-4659a-5p (and other miRNAs w/seed UGCCAUG)
miR-1-5p (and other miRNAs w/seed CAUACUU)
miR-494-3p (miRNAs w/seed GAAACAU)
miR-512-5p (miRNAs w/seed ACUCAGC)
miR-511-5p (miRNAs w/seed UGUCUUU)
miR-29b-1-5p (miRNAs w/seed CUGGUUU)
miR-467a-5p (and other miRNAs w/seed AAGUGCC)
miR-4257 (miRNAs w/seed CAGAGGU)

miR-4727-3p (miRNAs w/seed UAGUGGG)
miR-4729 (miRNAs w/seed CAUUUAU)
miR-3913-5p (and other miRNAs w/seed UUGGGAC)
miR-1958 (miRNAs w/seed AGGAAAG)
miR-33-3p (and other miRNAs w/seed AAUGUUU)
miR-4422 (miRNAs w/seed AAAGCAU)
miR-3073a-3p (miRNAs w/seed UGAUGUC)
miR-4302 (miRNAs w/seed CAGUGUG)
miR-423-3p (miRNAs w/seed GCUCGGU)
miR-5118 (miRNAs w/seed AGGUUAG)
miR-5691 (and other miRNAs w/seed UGCUCUG)
CBX5
SPRY2
miR-6846-3p (miRNAs w/seed GACCCCU)
miR-6933-3p (miRNAs w/seed GGUGUUU)
miR-6903-3p (miRNAs w/seed GUGUGUC)
miR-6809-3p (miRNAs w/seed UUCUCUU)
roflumilast N-oxide
SFPA1
miR-204-5p (and other miRNAs w/seed UCCCUUU)
miR-499-5p (and other miRNAs w/seed UAAGACU)
miR-3097-5p (and other miRNAs w/seed ACAGGUG)
IL37
NS-398
miR-146a-5p (and other miRNAs w/seed GAGAACU)
simvastatin
BAPTA-AM
JQ1
rottlerin
cerivastatin
N-[N-(3,5-difluorophenacetyl-L-Ala)]-S-phenylglycine t-butyl ester
PP2/AG1879 tyrosine kinase inhibitor
miR-2682-5p (and other miRNAs w/seed AGGCAGU)
losartan potassium
15-deoxy-delta-12,14 -PGJ 2
let-7
imatinib
niacinamide
calphostin C
miR-148a-5p (and other miRNAs w/seed AAGUUCU)
miR-9-5p (and other miRNAs w/seed CUUUGGU)
miR-374b-5p (and other miRNAs w/seed UAUAUAU)
Sn50 peptide
CISH
TP73
miR-3201 (and other miRNAs w/seed GGAUAUG)
miR-936 (miRNAs w/seed CAGUAGA)

miR-151-3p (and other miRNAs w/seed UAGACUG)
miR-208a-3p (and other miRNAs w/seed UAAGACG)
miR-466 (miRNAs w/seed UACACAU)
miR-3558-3p (and other miRNAs w/seed CUGUGGA)
miR-425-5p (and other miRNAs w/seed AUGACAC)
miR-642a-3p (and other miRNAs w/seed GACACAU)
miR-5003-5p (miRNAs w/seed CACAACA)
miR-6834-5p (miRNAs w/seed UGAGGGA)
miR-6927-3p (and other miRNAs w/seed CUGAGCU)
miR-6735-3p (miRNAs w/seed GGCCUGU)
miR-7652-3p (and other miRNAs w/seed CUGGCUU)
miR-4747-5p (and other miRNAs w/seed GGGAAGG)
miR-12194-3p (and other miRNAs w/seed CUGUGGG)
miR-3150a-3p (and other miRNAs w/seed UGGGGAG)
triptolide
atorvastatin
CITED2
mir-146
MCC950
miR-130b-5p (and other miRNAs w/seed CUCUUUC)
miR-34a-3p (and other miRNAs w/seed AUCAGCA)
miR-1969 (miRNAs w/seed AGAUGGA)
miR-589-3p (and other miRNAs w/seed CAGAACA)
miR-644a (miRNAs w/seed GUGUGGC)
miR-7063-5p (miRNAs w/seed UGAGAGG)
miR-6901-5p (miRNAs w/seed GCAGGAA)
U0126
fenofibrate
IL1RN
dexmedetomidine
miR-4276 (and other miRNAs w/seed UCAGUGA)
miR-449b-3p (and other miRNAs w/seed AGCCACA)
miR-495-3p (and other miRNAs w/seed AACAAAC)
miR-3190-3p (and other miRNAs w/seed GUGGAAG)
miR-4499 (and other miRNAs w/seed AGACUGA)
miR-1247-3p (and other miRNAs w/seed GGGAACG)
miR-342-3p (miRNAs w/seed CUCACAC)
miR-3529-3p (miRNAs w/seed ACAACAA)
N-acetyl-L-cysteine
LY294002
curcumin
tyrphostin AG490
Alpha catenin
SP600125
troglitazone
miR-3093-3p (and other miRNAs w/seed GUGGACA)
miR-185-3p (and other miRNAs w/seed GGGGCUG)

miR-12185-3p (and other miRNAs w/seed CAGCCAC)
miR-3103-5p (and other miRNAs w/seed GAGGGAG)
PD98059
let-7a-5p (and other miRNAs w/seed GAGGUAG)
SB203580

Table S8

Unique upstream regulators predicted in tissue biomarker analysis by IPA tool.

Unique upstream regulators in tissue biomarker analysis
IL6
ALOX5
miR-145a-3p (miRNAs w/seed UUCCUGG)
miR-3169 (miRNAs w/seed AGGACUG)
miR-7668-3p (miRNAs w/seed GGUGCAG)
miR-7066-5p (miRNAs w/seed GGGUUGG)
miR-6781-5p (miRNAs w/seed GGGCCGG)
miR-6857-5p (miRNAs w/seed UGGGGAU)
miR-423-5p (and other miRNAs w/seed GAGGGGC)
HNF4A
miR-3199 (and other miRNAs w/seed GGGACUG)
miR-10396b-5p (and other miRNAs w/seed GGCGGGG)
miR-7676-5p (miRNAs w/seed GGGCAGU)
miR-92a-1-5p (miRNAs w/seed GGUUGGG)
miR-3154 (miRNAs w/seed AGAAGGG)
miR-1914-3p (and other miRNAs w/seed GAGGGGU)
miR-6734-5p (and other miRNAs w/seed UGAGGGG)
miR-4254 (and other miRNAs w/seed CCUGGAG)
miR-5107-5p (miRNAs w/seed GGGCAGA)
miR-1953 (and other miRNAs w/seed GGGAAAG)
miR-342-5p (and other miRNAs w/seed GGGGUGC)

Table S9

Shared upstream regulators in fluid and tissue biomarker analysis by IPA tool.

Shared upstream regulators in fluid and tissue biomarker analysis
lipopolysaccharide
TNF
P38 MAPK
AGT
tetradecanoylphorbol acetate
miR-323-5p (and other miRNAs w/seed GGUGGUC)
miR-34a-5p (and other miRNAs w/seed GGCAGUG)