

High vs low 2 table 12

Control		Sample		Delta Score
Rank	Pathway name	Rank	Pathway name	
1	stress-associated pathways	1	stress-associated pathways	93771165,063
6	EGF pathway	4	EGF pathway	269804,608
2	p38 pathway	3	p38 pathway	-149817,166
10	JNK pathway	2	JNK pathway	1867081,666
9	Fas pathway	6	Fas pathway	169730,209
4	Epo pathway	8	Epo pathway	-63485,237
3	RANKL pathway	5	RANKL pathway	-62731,089
11	PRL pathway	13	PRL pathway	-39309,556
29	Caspase network	28	Caspase network	13216,515
5	BMP2 ---> p38alpha	7	BMP2 ---> p38alpha	-6249,200
18	Apo2L pathway	22	Apo2L pathway	-6859,888
39	TGFbeta pathway	47	TGFbeta pathway	-4899,146
8	TAK1 ---> ATF-2	11	TAK1 ---> ATF-2	-2877,072
104	T-cell antigen receptor pathwa	99	T-cell antigen receptor pathway	3464,226
12	RANKL ---> MITF	12	RANKL ---> MITF	-1951,387
80	B-cell antigen receptor pathwa	102	B-cell antigen receptor pathway	-2320,638
14	Epo ---> ERK1	16	Epo ---> ERK1	-1417,552
125	insulin pathway	106	insulin pathway	2465,758
7	EGF ---> PAK1	9	EGF ---> PAK1	-930,261
77	PDGF pathway	50	PDGF pathway	4138,090
40	alpha IIb beta3 pathway	45	alpha IIb beta3 pathway	-967,456
41	alpha IIb beta3 ---> Rac1	46	alpha IIb beta3 ---> Rac1	-967,456
21	EGF ---> ERK	23	EGF ---> ERK	-806,822
106	IL-1 pathway	122	IL-1 pathway	-720,321
179	E2F network	155	E2F network	914,382
17	ZAP-70 ---> c-Jun	19	ZAP-70 ---> c-Jun	-635,380
16	wnt pathway	15	wnt pathway	983,853
15	JNK1 ---> MKK4	10	JNK1 ---> MKK4	13019,663
27	IL-1beta ---> c-Jun	33	IL-1beta ---> c-Jun	-497,299
124	TLR3 pathway	132	TLR3 pathway	-496,264
46	IL-1beta ---> Elk-1	51	IL-1beta ---> Elk-1	-455,364
19	EGF ---> PI3K-C2beta	20	EGF ---> PI3K-C2beta	-365,482
20	RANKL ---> JNK1	21	RANKL ---> JNK1	-365,482
42	RhoA ---> stress fiber formati	85	RhoA ---> stress fiber formation	-965,492
43	RhoA pathway	86	RhoA pathway	-965,492
26	Epo ---> IP3, PtsIns(3,4)P	29	Epo ---> IP3, PtsIns(3,4)P	-365,313
78	IL-8 pathway	17	IL-8 pathway	9444,529
192	p53 pathway	205	p53 pathway	-202,057
13	c-Cbl ---/ ErBB1	14	c-Cbl ---/ ErBB1	-304,927
98	neurotensin pathway	18	neurotensin pathway	7986,684
47	fMLP pathway	43	fMLP pathway	491,192
198	TLR4 pathway	216	TLR4 pathway	-234,011
24	FasL ---> Caspase-3	26	FasL ---> Caspase-3	-266,208
25	EGF ---> c-Fos	27	EGF ---> c-Fos	-266,208
38	parkin associated pathways	30	parkin associated pathways	418,138
127	EDAR pathway	133	EDAR pathway	-225,875

158 IL-1beta ---> p50:RelA	180 IL-1beta ---> p50:RelA	-200,565
28 EDA-A2 ---> c-Jun	31 EDA-A2 ---> c-Jun	-200,410
96 LPS ---> p38	101 LPS ---> p38	-192,575
123 Rac1 pathway	130 Rac1 pathway	-181,013
154 IFN pathway	177 IFN pathway	-160,446
101 BCR ---> c-Jun	107 BCR ---> c-Jun	-179,309
30 JIP-1 ---> APP	34 JIP-1 ---> APP	-101,648
69 LAT ---> cofilin	76 LAT ---> cofilin	-109,977
117 BCR ---> p38	123 BCR ---> p38	-93,210
197 LPS ---> NF-kappaB	200 LPS ---> NF-kappaB	-73,928
81 Aurora-A cell cycle regulation	73 Aurora-A cell cycle regulation	129,989
82 PPAR pathway	74 PPAR pathway	129,989
83 Aurora-A activation, substrate	75 substrates and degradation	129,989
97 IFNgamma ---> STAT1alpha	42 IFNgamma ---> STAT1alpha	1340,139
119 HIF-1alpha pathway	173 HIF-1alpha pathway	-203,872
44 Apo2L ---Caspase-8---> Casp	48 Apo2L ---Caspase-8---> Caspase-3	-77,131
45 PRL ---IRS---> PI3K	49 PRL ---IRS---> PI3K	-77,131
181 G2/M phase (cyclin B:Cdk1)	184 G2/M phase (cyclin B:Cdk1)	-67,624
234 tuberin pathway	244 tuberin pathway	-56,400
150 BCR ---MLK3---> c-Jun	152 BCR ---MLK3---> c-Jun	-70,288
151 BCR ---> cytoskeletal reorgan	153 BCR ---> cytoskeletal reorganization	-70,288
152 insulin ---> glucose uptake	154 insulin ---> glucose uptake	-70,288
182 G1 phase (Cdk2)	181 G1 phase (Cdk2)	90,774
65 G-alpha-q ---> arachidonic aci	110 G-alpha-q ---> arachidonic acid, ERK	-249,620
246 VEGF-A pathway	234 VEGF-A pathway	235,105
22 EGF ---> STAT1alpha	24 EGF ---> STAT1alpha	-66,510
23 ASK1 ---> p38alpha	25 ASK1 ---> p38alpha	-66,510
103 PRL ---PI3K---> AKT	109 PRL ---PI3K---> AKT	-68,365
153 Htt pathway	156 Htt pathway	-61,628
205 TNF-alpha pathway	127 TNF-alpha pathway	1312,457
66 TNF-alpha ---> c-Jun	70 TNF-alpha ---> c-Jun	-60,347
67 Caspase-9 ---> Caspases	71 Caspase-9 ---> Caspases	-60,347
68 PRL ---> PAK1	72 PRL ---> PAK1	-60,347
178 IFNalpha, IFNbeta, IFNgamm	182 IFNalpha, IFNbeta, IFNgamma ---> Rap1	-54,370
233 insulin ---> AKT-1 pathway	253 insulin ---> AKT-1 pathway	-61,546
105 cyclosome regulatory network	100 cyclosome regulatory network	87,891
235 S phase (Cdk2)	218 S phase (Cdk2)	57,812
130 RANKL ---> AKT	134 RANKL ---> AKT	-49,497
131 dsRNA ---> IKK-alpha:IKK-b	135 dsRNA ---> IKK-alpha:IKK-beta{p}:IKK-gamma	-49,497
79 LAT ---> PKCtheta	32 LAT ---> PKCtheta	1112,824
118 p73 pathway	105 p73 pathway	72,202
31 EGF ---> SHIP1	35 EGF ---> SHIP1	-46,098

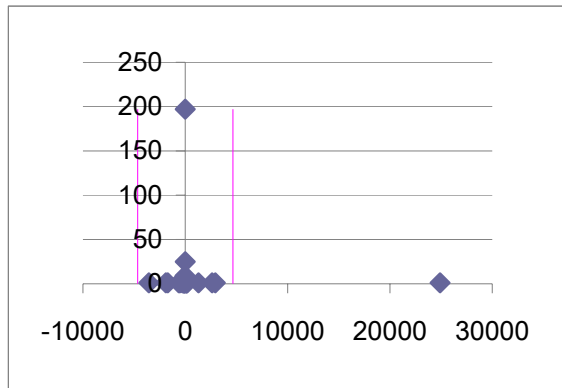
32 Cis ---/ PRLR	36 Cis ---/ PRLR	-46,098
33 EGF ---> STAT3	37 EGF ---> STAT3	-46,098
34 SOCS-1 ---/ PRL	38 SOCS-1 ---/ PRL	-46,098
35 Htt ---/ Caspase-8	39 Htt ---/ Caspase-8	-46,098
36 SOCS-3 ---/ EpoR	40 SOCS-3 ---/ EpoR	-46,098
37 SOCS-3 ---/ PRLR	41 SOCS-3 ---/ PRLR	-46,098
204 MHC class II ---> NF-AT	217 MHC class II ---> NF-AT	-34,981
159 LAT ---> p50:RelA	178 LAT ---> p50:RelA	-37,519
160 LPS ---> JNK	179 LPS ---> JNK	-37,519
102 PRL ---> Raf-1	108 PRL ---> Raf-1	-44,807
126 fMLP ---> superoxide	111 fMLP ---> superoxide	59,267
48 Smac ---/ cIAP-2	52 Smac ---/ cIAP-2	-33,896
49 SHP-2 ---> PRL	53 SHP-2 ---> PRL	-33,896
50 Smac ---/ cIAP-1	54 Smac ---/ cIAP-1	-33,896
51 DLK ---> c-Jun	55 DLK ---> c-Jun	-33,896
52 beta-arrestin2 ---> c-Jun	56 beta-arrestin2 ---> c-Jun	-33,896
53 ASK1 ---DUSP19---> c-Jun	58 ASK1 ---DUSP19---> c-Jun	-33,896
54 PRL ---Gab-2---> PI3K	59 PRL ---Gab-2---> PI3K	-33,896
55 PDGF B ---> PAK-1	60 PDGF B ---> PAK-1	-33,896
121 IFNalpha, IFNbeta ---> PI3K	194 IFNalpha, IFNbeta ---> PI3K	-283,342
122 dsRNA ---> c-Jun	129 dsRNA ---> c-Jun	-33,187
132 cyclosome regulation	128 cyclosome regulation	48,606
133 LAT ---> Ras	136 LAT ---> Ras	-28,097
134 LAT ---> MLC	137 LAT ---> MLC	-28,097
135 MHC class I ---> LAT	138 MHC class I ---> LAT	-28,097
70 MKK3 ---> HNF-1alpha	77 MKK3 ---> HNF-	-26,042
71 Epo ---> SHP-1	78 Epo ---> SHP-1	-26,042
72 GH pathway	79 GH pathway	-26,042
73 PDGF A ---> Crk	80 PDGF A ---> Crk	-26,042
74 Apo2L ---> Caspase-10	81 Apo2L ---> Caspase-10	-26,042
75 GH ---> Grb-2	82 GH ---> Grb-2	-26,042
76 Nod1 ---> Caspase-9	83 Nod1 ---> Caspase-9	-26,042
245 BCR ---> NF-AT	230 BCR ---> NF-AT	25,248
99 insulin ---Jak1---> IRS-1, IRS-	103 insulin ---Jak1---> IRS-1, IRS-2	-20,693
100 Src ---> Rap2B	104 Src ---> Rap2B	-20,693
201 Plk1 activation and substrates	251 Plk1 activation and substrates	-26,124
202 insulin ---Shc---> MAPK casc	196 insulin ---Shc---> MAPK cascade	23,606
203 Plk1 cell cycle regulation	252 Plk1 cell cycle regulation	-26,124
200 PRL ---Src,FAK1---> ERK	204 PRL ---Src,FAK1---> ERK	-14,352
120 Epo ---> PIP3	125 Epo ---> PIP3	-16,878
232 OSM pathway	199 OSM pathway	19,631
129 VEGF-A ---> PLA2	193 VEGF-A ---> PLA2	-44,476
136 IFNalpha, IFNbeta ---> STAT	223 IFNalpha, IFNbeta ---> STAT5	-155,857
137 Apaf-1 ---> Caspase-7	148 Apaf-1 ---> Caspase-7	-16,379
138 Apaf-1 ---> Caspase-3	149 Apaf-1 ---> Caspase-3	-16,379
139 CD19 ---> PLCgamma2	150 CD19 ---> PLCgamma2	-16,379
191 OSM ---> ERK	183 OSM ---> ERK	17,694
155 activin A ---> Smad2	157 activin A ---> Smad2	-12,001

156	activin A ---> Smad3	158	activin A ---> Smad3	-12,001
157	PRL ---Fyn---> PI3K	159	PRL ---Fyn---> PI3K	-12,001
56	ErbB1 ---> endophilin 1	61	ErbB1 ---> endophilin 1	-12,186
57	TAO1 ---> p38alpha	62	TAO1 ---> p38alpha	-12,186
58	MLK2 ---> JNK1	63	MLK2 ---> JNK1	-12,186
59	TAO2 ---MKK6---> p38alpha	64	TAO2 ---MKK6---> p38alpha	-12,186
60	E1 ---/ ErbB3	65	E1 ---/ ErbB3	-12,186
61	MLK2 ---MKK3---> p38alpha	66	MLK2 ---MKK3---> p38alpha	-12,186
62	MLK2 ---MKK6---> p38alpha	67	MLK2 ---MKK6---> p38alpha	-12,186
63	TAK1 ---> p38alpha	68	TAK1 ---> p38alpha	-12,186
64	TAO2 ---MKK3---> p38alpha	69	TAO2 ---MKK3---> p38alpha	-12,186
252	dsRNA ---> p50:RelA	248	dsRNA ---> p50:RelA	11,169
84	MEKK3 ---> ATF-2	87	MEKK3 ---> ATF-2	-9,071
85	MEKK2 ---MKK7---> JNK1	88	MEKK2 ---MKK7---> JNK1	-9,071
86	MEKK2 ---> ATF-2	89	MEKK2 ---> ATF-2	-9,071
87	GCK ---> MKK4	90	GCK ---> MKK4	-9,071
88	PDGF A ---> SHP-2	91	PDGF A ---> SHP-2	-9,071
89	MKK4 ---> c-Jun	92	MKK4 ---> c-Jun	-9,071
90	PDGF B ---> PKR	93	PDGF B ---> PKR	-9,071
91	TAK1 ---> c-Jun	94	TAK1 ---> c-Jun	-9,071
92	p38alpha ---> STAT3	95	p38alpha ---> STAT3	-9,071
93	JNK2 ---> doublecortin	96	JNK2 ---> doublecortin	-9,071
94	Epo ---Lyn---> STAT5A	97	Epo ---Lyn---> STAT5A	-9,071
95	MEKK2 ---> ATF-2	98	MEKK2 ---> ATF-2	-9,071
230	IFNalpha, IFNbeta ---> STAT	266	STAT1alpha, STAT2, STAT3	-75,551
231	insulin ---IRS---> PRK2, SHP	232	insulin ---IRS---> PRK2, SHP-2, MAPK	-7,030
247	mTOR ----> S6, eIF-4E	249	mTOR ----> S6, eIF-4E	-5,556
257	ZAP-70 ---> Elk-1	260	ZAP-70 ---> Elk-1	-4,946
258	PDGF A ---> ERK	261	PDGF A ---> ERK	-4,946
259	AKT, MAPKAPK2 ---/ tuberi	262	AKT, MAPKAPK2 ---/ tuberin	-4,946
260	PDGF B ---> ERK	263	PDGF B ---> ERK	-4,946
268	BCR ---> ERK	264	BCR ---> ERK	7,579
269	TNF-alpha ---> NFkappaB	233	TNF-alpha ---> NFkappaB	105,147
107	MKP-5 ---/ p53; MKK4 ---> p	112	MKP-5 ---/ p53; MKK4 ---> p53	-7,150
108	VEGF-A ---> Ras	113	VEGF-A ---> Ras	-7,150
109	PKCdelta ---> GRK2	114	PKCdelta ---> GRK2	-7,150
110	PRL ---> Jak2	115	PRL ---> Jak2	-7,150
111	PDGF B ---> Src	116	PDGF B ---> Src	-7,150
112	PDGF A ---> Src	117	PDGF A ---> Src	-7,150
113	SHP-1 ---/ ErbB1	118	SHP-1 ---/ ErbB1	-7,150
114	CD148 ---/ PDGFRbeta	119	CD148 ---/ PDGFRbeta	-7,150
115	PRL ---Jak2---> STAT5A	120	PRL ---Jak2---> STAT5A	-7,150
116	Unc18-1 ---/ PLD2	121	Unc18-1 ---/ PLD2	-7,150
140	MLK2 ---> NeuroD	139	MLK2 ---> NeuroD	-5,819

141 PRL ---Src--> STAT5B	140 PRL ---Src-->	-5,819
142 Smac --> Caspase-3	141 Smac --> Caspase-3	-5,819
143 PTEN ---/ AKT-1	142 PTEN ---/ AKT-1	-5,819
144 Smurf-1 ---/ Smad7, TGFbeta1	143 Smurf-1 ---/ Smad7, TGFbetaR-I	-5,819
145 Epo --> STAT5	144 Epo --> STAT5	-5,819
146 Htt --> Ca	145 Htt --> Ca	-5,819
147 EDAR --> TRAF2	146 EDAR --> TRAF2	-5,819
148 ASK1 ---MKK4--> JNK1	57 ASK1 ---MKK4--> JNK1	306,587
149 Fas ---/ Cdc42	147 Fas ---/ Cdc42	-5,819
251 beta-catenin network	247 beta-catenin network	6,102
161 PDGF B --> STATs	174 PDGF B --> STATs	-4,857
162 JNK1 --> Bax	175 JNK1 --> Bax	-4,857
163 Htt --> NeuroD	176 Htt --> NeuroD	-4,857
164 JLP --> JNK1	84 JLP --> JNK1	239,067
262 VEGF-A ---/ Caspase-9, Bad	254 VEGF-A ---/ Caspase-9, Bad	4,879
263 IL-12 - STAT4 pathway	255 IL-12 - STAT4 pathway	4,879
264 IL-12 --> STAT4	256 IL-12 --> STAT4	4,879
193 PDGF B ---SHP-2--> Ras; PI	124 Ras; PDGF B --- RasGAP---/ Ras	162,052
194 BMP7 --> Smad1, Smad5, Smad8	197 BMP7 --> Smad1, Smad5, Smad8	-3,618
195 SLP-65 ---/ Raf-1	198 SLP-65 ---/ Raf-1	-3,618
196 PDGF B---/ Ras	126 PDGF B---/ Ras	162,052
199 EDA-A2 ---TRAF3--> NF-kappaB	195 EDA-A2 ---TRAF3--> NF-kappaB	5,859
216 IL-22 --> STAT1alpha, STAT3	219 IL-22 --> STAT1alpha, STAT3	-3,159
217 Fer --> beta-catenin{ Tyr142 }	220 Fer --> beta- catenin{ Tyr142 }	-3,159
218 PDGF A --> AKT-1	221 PDGF A --> AKT-1	-3,159
219 IL-22 pathway	222 IL-22 pathway	-3,159
220 IL-10 pathway	224 IL-10 pathway	-3,159
221 PDK1 --> 4E-BP1, p70S6K1	225 PDK1 --> 4E-BP1, p70S6K1	-3,159
222 PDGF B --> AKT-1	226 PDGF B --> AKT-1	-3,159
223 EGF --> PLD2	227 EGF --> PLD2	-3,159
224 IL-10 --> STAT1alpha, STAT3	228 IL-10 --> STAT1alpha, STAT3	-3,159
225 CHIP ---/ Pael-R	229 CHIP ---/ Pael-R	-3,159
226 Src ---/ RhoA	151 Src ---/ RhoA	136,319
241 TGFbeta --> Smad2, Smad3	240 TGFbeta --> Smad2, Smad3	-2,773
242 EGF --> DAG, IP3	241 EGF --> DAG, IP3	-2,773
243 Src --> Rac1	242 Src --> Rac1	-2,773
244 Rac1 --> c-Jun, Elk-1	243 Rac1 --> c-Jun, Elk-1	-2,773
270 VEGF-A --> NO	231 VEGF-A --> NO	72,404
248 Csk, CD45 --> Lck	250 Csk, CD45 --> Lck	-2,437
261 Csk, CD45 --> Fyn	265 Csk, CD45 --> Fyn	-2,226
227 PDGF A --> DAG, IP3	201 PDGF A --> DAG, IP3	4,551
228 PDGF B --> DAG, IP3	202 PDGF B --> DAG, IP3	4,551
229 PI3K ---/ p53	203 PI3K ---/ p53	4,551
273 G2/M phase (cyclin A:Cdk1)	273 G2/M phase (cyclin A:Cdk1)	3,073

249 IL-4 - STAT6 pathway	245 IL-4 - STAT6 pathway	2,695
250 IL-4 ---> STAT6	246 IL-4 ---> STAT6	2,695
128 MKK6 ---> Hsp27	131 MKK6 ---> Hsp27	-1,627
165 MEK-1 ---> HIF-1alpha	160 MEK-1 ---> HIF-1alpha	-1,346
166 MKK6 ---/ MRF4	161 MKK6 ---/ MRF4	-1,346
167 p38alpha ---> CREB	162 p38alpha ---> CREB	-1,346
168 E1 ---/ alpha-tubulin	163 E1 ---/ alpha-tubulin	-1,346
169 MKK6 ---> p53	164 MKK6 ---> p53	-1,346
170 MKK4 ---/ RXR-alpha	165 MKK4 ---/ RXR-alpha	-1,346
171 MKK4 ---p38alpha---> ATF-2	166 MKK4 ---p38alpha---> ATF-2	-1,346
172 E1 ---/ synaptotagmin-11	167 E1 ---/ synaptotagmin-11	-1,346
173 E1 ---/ beta-tubulin	168 E1 ---/ beta-tubulin	-1,346
174 E1 ---/ Septin5	169 E1 ---/ Septin5	-1,346
175 E1 ---dorfin---/ synphilin-1	170 E1 ---dorfin---/ synphilin-1	-1,346
176 MEKK4 ---> JNK1	171 MEKK4 ---> JNK1	-1,346
177 E1 ---parkin---/ synphilin-1	172 E1 ---parkin---/ synphilin-1	-1,346
271 IL-8 ---> ERK2	268 IL-8 ---> ERK2	1,545
272 Eps15 ---> ErbB internalizatio	269 Eps15 ---> ErbB internalization inhibitory	1,545
183 inhibitory phosphorylation of '	185 phosphorylation of TGFbetaR-II	-1,142
184 MKK7 ---> c-Jun	186 MKK7 ---> c-Jun	-1,142
185 EDA-A2 ---> TRAF6	187 EDA-A2 ---> TRAF6	-1,142
186 Fas ---> Caspase-8	188 Fas ---> Caspase-8	-1,142
187 PP2Calpha ---/ MKK4	189 PP2Calpha ---/ MKK4	-1,142
188 PP2Calpha ---/ MKK6	190 PP2Calpha ---/ MKK6	-1,142
189 Caspase-6 ---> Caspase-3	191 Caspase-6 ---> Caspase-3	-1,142
190 MEKK4 --MKK6---> ATF-2	192 MEKK4 --MKK6---> ATF-2	-1,142
206 Rac1 ---/ cofilin	206 Rac1 ---/ cofilin	-0,985
207 Fas ---> Abl	207 Fas ---> Abl	-0,985
208 E1 ---/ alpha-synuclein	208 E1 ---/ alpha-synuclein	-0,985
209 VEGF-A ---> STAT1alpha	209 VEGF-A ---> STAT1alpha	-0,985
210 EGF ---> N-WASP	210 EGF ---> N-WASP	-0,985
211 LMW-PTP ---/ VEGFR-1	211 LMW-PTP ---/ VEGFR-1	-0,985
212 Fas ---/ SRF	212 Fas ---/ SRF	-0,985
213 Fas ---/ NuMA	213 Fas ---/ NuMA	-0,985
214 xolloid ---> BMP4	214 xolloid ---> BMP4	-0,985
215 Rac1 ---> p38	215 Rac1 ---> p38	-0,985
236 Fas ---/ PRK2	235 Fas ---/ PRK2	-0,854
237 E1 ---/ cyclin E	236 E1 ---/ cyclin E	-0,854
238 Rac1 ---> golgin-160	237 Rac1 ---> golgin-160	-0,854
239 MKK4 ---/ PPAR-gamma	238 MKK4 ---/ PPAR-gamma	-0,854
240 PDGF B ---> cortactin	239 PDGF B ---> cortactin	-0,854
265 Rac1 ---MLK3---> c-Jun	270 Rac1 ---MLK3---> c-	-0,679
266 HB-EGF ---> PI3K	271 HB-EGF ---> PI3K	-0,679
267 c-Jun degradation	272 c-Jun degradation	-0,679
253 POSH ---> JNK1, JNK2	257 POSH ---> JNK1, JNK2	-0,773

254 Fas ---> Caspase-2	258 Fas ---> Caspase-2	-0,773
255 Ubc9 ---/ p73alpha	259 Ubc9 ---/ p73alpha	-0,773
274 IL-2 ---> STAT5	274 IL-2 ---> STAT5	1,151
275 IL-2 - STAT5 pathway	275 IL-2 - STAT5 pathway	1,151
276 OSM ---> STAT1	276 OSM ---> STAT1	1,151



High vs Control 1 table 7

Control Rank	Sample Rank	Pathway name	Delta Score
	1	stress-associated pat	105191796,3
8	4	EGF pathway	462995,8944
2	3	p38 pathway	-391151,6624
4	8	Epo pathway	-163093,3452
3	5	RANKL pathway	-157251,5837
10	13	PRL pathway	-102743,8744
9	6	Fas pathway	271210,8076
14	2	JNK pathway	2089743,305
26	28	Caspase network	-15419,93697
5	7	BMP2 ---> p38alpha	-15411,36894
15	22	Apo2L pathway	-16905,35411
29	47	TGFbeta pathway	-12776,42769
7	11	TAK1 ---> ATF-2	-7083,383705
11	12	RANKL ---> MITF	-4815,577821
72	102	B-cell antigen recept	-5722,181852
119	99	T-cell antigen recept	5918,691127
13	16	Epo ---> ERK1	-3500,372226
104	106	insulin pathway	115,5357167
70	50	PDGF pathway	2073,714271
6	9	EGF ---> PAK1	-2298,62903
23	17	IL-8 pathway	4137,652823
39	45	alpha IIb beta3 pathw	-2409,424991
40	46	alpha IIb beta3 --->]	-2409,424991
20	23	EGF ---> ERK	-1996,043332
97	122	IL-1 pathway	-1812,443591
16	19	ZAP-70 ---> c-Jun	-1570,767268
28	33	IL-1beta ---> c-Jun	-1275,400328
105	132	TLR3 pathway	-1249,980279
183	155	E2F network	1519,861084
41	51	IL-1beta ---> Elk-1	-1132,919507
19	15	wnt pathway	1677,349921
62	18	neurotensin pathway	6788,071844
17	20	EGF ---> PI3K-C2b	-905,7640202
18	21	RANKL ---> JNK1	-905,7640202
27	29	Epo ---> IP3, PtsIns(-906,4850071
12	14	c-Cbl ---/ ErBB1	-757,7697857
184	216	TLR4 pathway	-630,4284506
21	26	FasL ---> Caspase-3	-661,4308662
22	27	EGF ---> c-Fos	-661,4308662
63	85	RhoA ---> stress fib	-556,5378494
64	86	RhoA pathway	-556,5378494
221	205	p53 pathway	78,177674
68	43	fMLP pathway	833,0669429
148	180	IL-1beta ---> p50:Re	-511,0327687
81	101	LPS ---> p38	-483,0031774
44	30	parkin associated pa	709,9205988

115 Rac1 pathway	130 Rac1 pathway	-456,6118248
94 BCR ---> c-J	107 BCR ---> c-Jun	-428,9647859
172 EDAR pathw	133 EDAR pathway	550,2846653
30 JNK1 ---> M	10 JNK1 ---> MKK4	16283,45629
31 JIP-1 ---> AF	34 JIP-1 ---> APP	-255,3591295
69 LAT ---> cof	76 LAT ---> cofilin	-261,1548327
103 BCR ---> p38	123 BCR ---> p38	-236,6233663
185 IFN pathway	177 IFN pathway	382,7142584
186 LPS ---> NF-	200 LPS ---> NF-kappaF	-194,188796
82 IFNgamma -	42 IFNgamma ---> ST/	1214,993089
42 Apo2L ---Ca	48 Apo2L ---Caspase-8	-194,7037764
43 PRL ---IRS--	49 PRL ---IRS---> PI3F	-194,7037764
173 G2/M phase	184 G2/M phase (cyclin	-184,2823647
222 tuberin pathv	244 tuberin pathway	-151,3471874
130 BCR ---MLK	152 BCR ---MLK3---> c	-179,9763169
131 BCR ---> cyt	153 BCR ---> cytoskelet	-179,9763169
132 insulin ---> g	154 insulin ---> glucose	-179,9763169
24 EGF ---> ST.	24 EGF ---> STAT1alp	-168,5738935
25 ASK1 ---> p.	25 ASK1 ---> p38alpha	-168,5738935
99 PRL ---PI3K	109 PRL ---PI3K---> AK	-173,7969942
146 Htt pathway	156 Htt pathway	-158,7731348
100 Aurora-A cel	73 Aurora-A cell cycle	218,2892338
101 PPAR pathw	74 PPAR pathway	218,2892338
102 Aurora-A act	75 Aurora-A activation.	218,2892338
126 HIF-1alpha p	173 HIF-1alpha pathway	-124,3791449
195 TNF-alpha p	127 TNF-alpha pathway	1230,370457
65 TNF-alpha --	70 TNF-alpha ---> c-Ju	-153,1702529
66 Caspase-9 ---	71 Caspase-9 ---> Casp	-153,1702529
67 PRL ---> PA	72 PRL ---> PAK1	-153,1702529
241 VEGF-A pat	234 VEGF-A pathway	279,2552963
187 G1 phase (C	181 G1 phase (Cdk2)	147,9239624
71 G-alpha-q ---	110 G-alpha-q ---> arach	-170,2934332
120 RANKL --->	134 RANKL ---> AKT	-127,3982623
121 dsRNA --->]	135 dsRNA ---> IKK-alf	-127,3982623
80 EDA-A2 --->	31 EDA-A2 ---> c-Jun	1037,589624
236 insulin ---> A	253 insulin ---> AKT-1 f	-22,42113571
32 EGF ---> SH	35 EGF ---> SHIP1	-117,6196235
33 Cis ---/ PRLI	36 Cis ---/ PRLR	-117,6196235
34 EGF ---> ST.	37 EGF ---> STAT3	-117,6196235
35 SOCS-1 ---/]	38 SOCS-1 ---/ PRL	-117,6196235
36 Htt ---/ Caspi	39 Htt ---/ Caspase-8	-117,6196235
37 SOCS-3 ---/]	40 SOCS-3 ---/ EpoR	-117,6196235

38 SOCS-3 ---/	41 SOCS-3 ---/ PRLR	-117,6196235
118 cyclosome re	100 cyclosome regulator	146,559659
238 S phase (Cdk	218 S phase (Cdk2)	90,87593169
153 LAT ---> p50	178 LAT ---> p50:RelA	-103,1956503
154 LPS ---> JNF	179 LPS ---> JNK	-103,1956503
98 PRL ---> Raf	108 PRL ---> Raf-1	-107,143571
123 p73 pathway	105 p73 pathway	119,8702688
45 Smac ---/ cIAP	52 Smac ---/ cIAP-2	-86,97654604
46 SHP-2 ---> P	53 SHP-2 ---> PRL	-86,97654604
47 Smac ---/ cIAP	54 Smac ---/ cIAP-1	-86,97654604
48 DLK ---> c-Jun	55 DLK ---> c-Jun	-86,97654604
49 beta-arrestin1	56 beta-arrestin2 ---> c-	-86,97654604
50 ASK1 ---DU	58 ASK1 ---DUSP19---	-86,97654604
51 PRL ---Gab-	59 PRL ---Gab-2---> PI	-86,97654604
52 PDGF B --->	60 PDGF B ---> PAK-1	-86,97654604
116 dsRNA ---> c	129 dsRNA ---> c-Jun	-85,79673243
143 fMLP ---> su	111 fMLP ---> superoxic	97,89766986
124 LAT ---> MLC	137 LAT ---> MLC	-73,23405127
125 MHC class I	138 MHC class I ---> LA	-73,23405127
207 IFNalpha, IF	182 IFNalpha, IFNbeta, I	238,4341866
147 cyclosome re	128 cyclosome regulatio	79,81801536
73 MKK3 ---> HNF-1a	77 MKK3 ---> HNF-1a	-67,34965229
74 Epo ---> SHP-1	78 Epo ---> SHP-1	-67,34965229
75 GH pathway	79 GH pathway	-67,34965229
76 PDGF A --->	80 PDGF A ---> Crk	-67,34965229
77 Apo2L ---> Caspase	81 Apo2L ---> Caspase	-67,34965229
78 GH ---> Grb-2	82 GH ---> Grb-2	-67,34965229
79 Nod1 ---> Caspase-9	83 Nod1 ---> Caspase-9	-67,34965229
249 MHC class II	217 MHC class II ---> N	161,6773359
95 insulin ---Jak	103 insulin ---Jak1---> II	-53,99402847
96 Src ---> Rap2B	104 Src ---> Rap2B	-53,99402847
240 BCR ---> NF-AT	230 BCR ---> NF-AT	38,6252246
194 PRL ---Src,F	204 PRL ---Src,FAK1---	-39,43626531
117 Epo ---> PIP3	125 Epo ---> PIP3	-44,48930663
223 insulin ---Shc	196 insulin ---Shc---> M	36,86670007
127 Apaf-1 ---> Caspase	148 Apaf-1 ---> Caspase	-39,79837848
128 Apaf-1 ---> Caspase	149 Apaf-1 ---> Caspase	-39,79837848
129 CD19 ---> PLCgamma	150 CD19 ---> PLCgamma	-39,79837848
235 OSM pathwa	199 OSM pathway	30,23197963
263 Plk1 activatio	251 Plk1 activation and s	21,80957288
264 Plk1 cell cyc	252 Plk1 cell cycle regul	21,80957288
149 activin A --->	157 activin A ---> Smad	-32,27797217
150 activin A --->	158 activin A ---> Smad	-32,27797217
151 PRL ---Fyn---	159 PRL ---Fyn---> PI3F	-32,27797217
152 LAT ---> PKCtheta	32 LAT ---> PKCtheta	1488,736458
145 VEGF-A --->	193 VEGF-A ---> PLA2	-29,2285043
53 ErbB1 ---> endophil	61 ErbB1 ---> endophil	-32,23788852
54 TAO1 ---> p38alpha	62 TAO1 ---> p38alpha	-32,23788852

55 MLK2 ---> J	63 MLK2 ---> JNK1	-32,23788852
56 TAO2 ---MK	64 TAO2 ---MKK6---	-32,23788852
57 E1 ---/ ErbB3	65 E1 ---/ ErbB3	-32,23788852
58 MLK2 ---MF	66 MLK2 ---MKK3---	-32,23788852
59 MLK2 ---MF	67 MLK2 ---MKK6---	-32,23788852
60 TAK1 ---> p	68 TAK1 ---> p38alpha	-32,23788852
61 TAO2 ---MK	69 TAO2 ---MKK3---	-32,23788852
193 OSM ---> EF	183 OSM ---> ERK	27,73705871
174 IFNalpha, IF	194 IFNalpha, IFNbeta -	-24,80528675
192 LAT ---> Ra	136 LAT ---> Ras	193,3661012
254 dsRNA ---> j	248 dsRNA ---> p50:Rel	16,23728016
83 MEKK3 --->	87 MEKK3 ---> ATF-2	-24,31341612
84 MEKK2 ---M	88 MEKK2 ---MKK7--	-24,31341612
85 MEKK2 --->	89 MEKK2 ---> ATF-2	-24,31341612
86 GCK ---> M	90 GCK ---> MKK4	-24,31341612
87 PDGF A --->	91 PDGF A ---> SHP-2	-24,31341612
88 MKK4 ---> c	92 MKK4 ---> c-Jun	-24,31341612
89 PDGF B --->	93 PDGF B ---> PKR	-24,31341612
90 TAK1 ---> c.	94 TAK1 ---> c-Jun	-24,31341612
91 p38alpha --->	95 p38alpha ---> STAT	-24,31341612
92 Epo ---Lyn--	97 Epo ---Lyn---> STA	-24,31341612
93 MEKK2 --->	98 MEKK2 ---> ATF-2	-24,31341612
220 insulin ---IRS	232 insulin ---IRS---> PI	-21,65947924
237 mTOR ---->	249 mTOR ----> S6, eIF	-16,56576239
245 ZAP-70 --->	260 ZAP-70 ---> Elk-1	-15,16034362
246 PDGF A --->	261 PDGF A ---> ERK	-15,16034362
247 AKT, MAPK	262 AKT, MAPKAPK2	-15,16034362
248 PDGF B --->	263 PDGF B ---> ERK	-15,16034362
106 MKP-5 ---/ p	112 MKP-5 ---/ p53; MK	-19,37067962
107 VEGF-A --->	113 VEGF-A ---> Ras	-19,37067962
108 PRL ---> Jak	115 PRL ---> Jak2	-19,37067962
109 PDGF B --->	116 PDGF B ---> Src	-19,37067962
110 PDGF A --->	117 PDGF A ---> Src	-19,37067962
111 SHP-1 ---/ Er	118 SHP-1 ---/ ErbB1	-19,37067962
112 CD148 ---/ P	119 CD148 ---/ PDGFRt	-19,37067962
113 PRL ---Jak2-	120 PRL ---Jak2---> ST/	-19,37067962
114 Unc18-1 ---/	121 Unc18-1 ---/ PLD2	-19,37067962
267 BCR ---> ER	264 BCR ---> ERK	10,39503855
268 TNF-alpha --	233 TNF-alpha ---> NFk	107,9632621
133 MLK2 ---> N	139 MLK2 ---> NeuroD	-16,00984838
134 PRL ---Src--	140 PRL ---Src---> STA'	-16,00984838
135 Smac ---> Cc	141 Smac ---> Caspase-2	-16,00984838
136 PTEN ---/ Al	142 PTEN ---/ AKT-1	-16,00984838
137 Smurf-1 ---/	143 Smurf-1 ---/ Smad7,	-16,00984838

138 Epo ---> STAT5	144 Epo ---> STAT5	-16,00984838
139 Htt ---> Ca	145 Htt ---> Ca	-16,00984838
140 EDAR ---> TRAF2	146 EDAR ---> TRAF2	-16,00984838
141 ASK1 ---MKK4	57 ASK1 ---MKK4	296,3965869
142 Fas ---/ Cdc42	147 Fas ---/ Cdc42	-16,00984838
155 PDGF B ---> STAT4	174 PDGF B ---> STAT4	-13,60362822
156 JNK1 ---> Bax	175 JNK1 ---> Bax	-13,60362822
157 Htt ---> NeuroD	176 Htt ---> NeuroD	-13,60362822
158 JLP ---> JNK1	84 JLP ---> JNK1	230,3204184
253 beta-catenin network	247 beta-catenin network	8,628379475
188 PDGF B ---SHP-2	124 PDGF B ---SHP-2	155,1682274
189 BMP7 ---> Smad1,5,8	197 BMP7 ---> Smad1,5,8	-10,50154492
190 SLP-65 ---/ Raf-1	198 SLP-65 ---/ Raf-1	-10,50154492
191 PDGF B---/ Ras	126 PDGF B---/ Ras	155,1682274
260 VEGF-A ---/ Caspase	254 VEGF-A ---/ Caspase	6,666090963
261 IL-12 - STAT4 pathway	255 IL-12 - STAT4 pathway	6,666090963
262 IL-12 ---> STAT4	256 IL-12 ---> STAT4	6,666090963
208 IL-22 ---> STAT1alpha	219 IL-22 ---> STAT1alpha	-9,398912844
209 Fer ---> beta-catenin	220 Fer ---> beta-catenin	-9,398912844
210 PDGF A ---> AKT-1	221 PDGF A ---> AKT-1	-9,398912844
211 IL-22 pathway	222 IL-22 pathway	-9,398912844
212 IFNalpha, IFNbeta	223 IFNalpha, IFNbeta	-9,398912844
213 IL-10 pathway	224 IL-10 pathway	-9,398912844
214 PDK1 ---> 4E-BP1	225 PDK1 ---> 4E-BP1	-9,398912844
215 PDGF B ---> AKT-1	226 PDGF B ---> AKT-1	-9,398912844
216 EGF ---> PLD2	227 EGF ---> PLD2	-9,398912844
217 IL-10 ---> STAT1alpha	228 IL-10 ---> STAT1alpha	-9,398912844
218 CHIP ---/ Pael-R	229 CHIP ---/ Pael-R	-9,398912844
219 Src ---/ RhoA	151 Src ---/ RhoA	130,0795627
227 TGFbeta ---> Smad2	240 TGFbeta ---> Smad2	-8,490895752
228 Src ---> Rac1	242 Src ---> Rac1	-8,490895752
229 Rac1 ---> c-Jun, Elk	243 Rac1 ---> c-Jun, Elk	-8,490895752
239 Csk, CD45 ---> Lck	250 Csk, CD45 ---> Lck	-7,721816554
252 Csk, CD45 ---> Fyn	265 Csk, CD45 ---> Fyn	-7,202503563
259 G2/M phase (cyclin D)	273 G2/M phase (cyclin D)	-7,255269942
265 IFNalpha, IFNbeta	266 IFNalpha, IFNbeta	5,084837486
266 VEGF-A ---> NO	231 VEGF-A ---> NO	73,60596171
224 PDGF A ---> DAG, IP3	201 PDGF A ---> DAG, IP3	6,613566836
225 PDGF B --> DAG, IP3	202 PDGF B --> DAG, IP3	6,613566836
226 PI3K ---/ p53	203 PI3K ---/ p53	6,613566836
250 IL-4 - STAT6 pathway	245 IL-4 - STAT6 pathway	3,651700968
251 IL-4 ---> STAT6	246 IL-4 ---> STAT6	3,651700968
122 MKK6 ---> Hsp27	131 MKK6 ---> Hsp27	-4,767221726
258 EGF ---> DAG, IP3	241 EGF ---> DAG, IP3	36,51428191

159 MEK-1 --->	160 MEK-1 ---> HIF-1a	-4,437030777
160 MKK6 ---/ M	161 MKK6 ---/ MRF4	-4,437030777
161 p38alpha --->	162 p38alpha ---> CREB	-4,437030777
162 E1 ---/ alpha-	163 E1 ---/ alpha-tubulin	-4,437030777
163 MKK6 ---> p	164 MKK6 ---> p53	-4,437030777
164 MKK4 ---/ R	165 MKK4 ---/ RXR- α	-4,437030777
165 MKK4 ---p38	166 MKK4 ---p38alpha-	-4,437030777
166 E1 ---/ synap	167 E1 ---/ synaptotagm	-4,437030777
167 E1 ---/ beta-t	168 E1 ---/ beta-tubulin	-4,437030777
168 E1 ---/ Septin	169 E1 ---/ Septin5	-4,437030777
169 E1 ---dorfin-	170 E1 ---dorfin---/ synp	-4,437030777
170 MEKK4 --->	171 MEKK4 ---> JNK1	-4,437030777
171 E1 ---parkin-	172 E1 ---parkin---/ synp	-4,437030777
175 inhibitory ph	185 inhibitory phosphory	-3,528516668
176 MKK7 ---> c	186 MKK7 ---> c-Jun	-3,528516668
177 Fas ---> Casp	188 Fas ---> Caspase-8	-3,528516668
178 JNK2 ---> dc	96 JNK2 ---> doubleco	116,4408007
179 PP2Calpha --	189 PP2Calpha ---/ MKF	-3,528516668
180 PP2Calpha --	190 PP2Calpha ---/ MKF	-3,528516668
181 Caspase-6 ---	191 Caspase-6 ---> Casp	-3,528516668
182 MEKK4 --M	192 MEKK4 --MKK6---	-3,528516668
269 IL-8 ---> ER	268 IL-8 ---> ERK2	1,870590591
270 Eps15 ---> E	269 Eps15 ---> ErbB int	1,870590591
196 Rac1 ---/ cof	206 Rac1 ---/ cofilin	-3,156909041
197 Fas ---> Abl	207 Fas ---> Abl	-3,156909041
198 E1 ---/ alpha-	208 E1 ---/ alpha-synucle	-3,156909041
199 PKCdelta ---	114 PKCdelta ---> GRK	92,29411502
200 VEGF-A --->	209 VEGF-A ---> STAT	-3,156909041
201 EGF ---> N ¹	210 EGF ---> N-WASP	-3,156909041
202 LMW-PTP --	211 LMW-PTP ---/ VEG	-3,156909041
203 Fas ---/ SRF	212 Fas ---/ SRF	-3,156909041
204 Fas ---/ NuM	213 Fas ---/ NuMA	-3,156909041
205 xolloid ---> F	214 xolloid ---> BMP4	-3,156909041
206 Rac1 ---> p3	215 Rac1 ---> p38	-3,156909041
230 Fas ---/ PRK	235 Fas ---/ PRK2	-2,864856895
231 E1 ---/ cyclin	236 E1 ---/ cyclin E	-2,864856895
232 Rac1 ---> go	237 Rac1 ---> golgin-16	-2,864856895
233 MKK4 ---/ P	238 MKK4 ---/ PPAR-g α	-2,864856895
234 PDGF B --->	239 PDGF B ---> cortact	-2,864856895
255 Rac1 ---MLK	270 Rac1 ---MLK3---> c	-2,484075034
256 HB-EGF --->	271 HB-EGF ---> PI3K	-2,484075034
257 c-Jun degrad	272 c-Jun degradation	-2,484075034
242 Fas ---> Casp	258 Fas ---> Caspase-2	-2,676064487
243 Ubc9 ---/ p7 α	259 Ubc9 ---/ p73alpha	-2,676064487
271 IL-2 ---> ST α	274 IL-2 ---> STAT5	1,281274443

High vs.control 2 table 8

Control Rank	Pathway name	Sample Rank	Pathway name	Delta Score
1	stress-associated pathways	1	stress-associated pathways	73577938,8
4	EGF pathway	4	EGF pathway	269394,619
3	JNK pathway	2	JNK pathway	1344618,07
7	Fas pathway	6	Fas pathway	56483,8642
2	p38 pathway	3	p38 pathway	43897,5229
8	Epo pathway	8	Epo pathway	18776,9272
5	RANKL pathway	5	RANKL pathway	17923,5892
17	PRL pathway	13	PRL pathway	11459,6106
31	Caspase network	28	Caspase network	9653,51643
12	LPS ---> p38	101	LPS ---> p38	-61451,137
13	LPS ---> JNK	179	LPS ---> JNK	-47580,873
6	BMP2 ---> p38alpha	7	BMP2 ---> p38alpha	1824,47828
14	neurotensin pathway	18	neurotensin pathway	-16692,679
24	Apo2L pathway	22	Apo2L pathway	1933,3294
47	TLR4 pathway	216	TLR4 pathway	-17692,979
105	T-cell antigen receptor pathv	99	T-cell antigen receptor pat	1433,08914
50	TGFbeta pathway	47	TGFbeta pathway	1423,69414
10	JNK1 ---> MKK4	10	JNK1 ---> MKK4	822,939746
11	TAK1 ---> ATF-2	11	TAK1 ---> ATF-2	822,939746
19	IL-8 pathway	17	IL-8 pathway	-1438,8863
116	insulin pathway	106	insulin pathway	755,658012
15	RANKL ---> MITF	12	RANKL ---> MITF	560,042189
110	B-cell antigen receptor pathv	102	B-cell antigen receptor pat	627,630127
45	LPS ---> NF-kappaB	200	LPS ---> NF-kappaB	-7963,8664
20	Epo ---> ERK1	16	Epo ---> ERK1	403,81925
9	EGF ---> PAK1	9	EGF ---> PAK1	248,536824
104	PDGF pathway	50	PDGF pathway	5806,61116
147	E2F network	155	E2F network	-622,21006
16	wnt pathway	15	wnt pathway	-579,38247
106	TLR3 pathway	132	TLR3 pathway	-2104,7261
48	alpha IIb beta3 pathway	45	alpha IIb beta3 pathway	329,270375
49	alpha IIb beta3 ---> Rac1	46	alpha IIb beta3 ---> Rac1	329,270375
25	EGF ---> ERK	23	EGF ---> ERK	225,855736
127	IL-1 pathway	122	IL-1 pathway	197,142496
21	ZAP-70 ---> c-Jun	19	ZAP-70 ---> c-Jun	175,270189
36	fMLP pathway	43	fMLP pathway	-292,23474
34	IL-1beta ---> c-Jun	33	IL-1beta ---> c-Jun	136,669998
30	parkin associated pathways	30	parkin associated pathway	-248,62879
61	IL-1beta ---> Elk-1	51	IL-1beta ---> Elk-1	124,32351
202	p53 pathway	205	p53 pathway	-189,95805
22	EGF ---> PI3K-C2beta	20	EGF ---> PI3K-C2beta	97,4001465
23	RANKL ---> JNK1	21	RANKL ---> JNK1	97,4001465
32	Epo ---> IP3, PtsIns(3,4)P	29	Epo ---> IP3, PtsIns(3,4)P	98,2138601
18	c-Cbl ---/ ErBB1	14	c-Cbl ---/ ErBB1	78,59088
78	RhoA ---> stress fiber forma	85	RhoA ---> stress fiber forr	-178,51005
79	RhoA pathway	86	RhoA pathway	-178,51005

44 IFNgamma ---> STAT1alpha	42 IFNgamma ---> STAT1alpha	75,9219036
28 FasL ---> Caspase-3	26 FasL ---> Caspase-3	69,7918532
29 EGF ---> c-Fos	27 EGF ---> c-Fos	69,7918532
130 TNF-alpha pathway	127 TNF-alpha pathway	65,7636619
179 IL-1beta ---> p50:RelA	180 IL-1beta ---> p50:RelA	48,3962652
33 LAT ---> PKCtheta	32 LAT ---> PKCtheta	51,5838135
132 Rac1 pathway	130 Rac1 pathway	45,174995
178 IFN pathway	177 IFN pathway	38,1953297
114 BCR ---> c-Jun	107 BCR ---> c-Jun	41,4704672
89 dsRNA ---> IKK-alpha:IKK	135 dsRNA ---> IKK-alpha:IKK	-734,13278
72 Aurora-A cell cycle regulation	73 Aurora-A cell cycle regulation	-78,985241
73 PPAR pathway	74 PPAR pathway	-78,985241
74 Aurora-A activation, substrate	75 Aurora-A activation, substrate	-78,985241
71 dsRNA ---> c-Jun	129 dsRNA ---> c-Jun	-702,26098
182 EDAR pathway	133 EDAR pathway	831,289754
233 VEGF-A pathway	234 VEGF-A pathway	14,949991
35 JIP-1 ---> APP	34 JIP-1 ---> APP	24,4952547
159 G1 phase (Cdk2)	181 G1 phase (Cdk2)	-57,584937
80 LAT ---> cofilin	76 LAT ---> cofilin	24,0152997
128 BCR ---> p38	123 BCR ---> p38	21,7390394
90 cyclosome regulatory network	100 cyclosome regulatory network	-54,051017
248 tuberin pathway	244 tuberin pathway	9,12245919
191 G2/M phase (cyclin B:Cdk1)	184 G2/M phase (cyclin B:Cdk1)	13,8168947
51 Apo2L ---Caspase-8---> Caspase-3	48 Apo2L ---Caspase-8---> Caspase-3	18,041807
52 PRL ---IRS---> PI3K	49 PRL ---IRS---> PI3K	18,041807
152 BCR ---MLK3---> c-Jun	152 BCR ---MLK3---> c-Jun	15,4982804
153 BCR ---> cytoskeletal reorganization	153 BCR ---> cytoskeletal reorganization	15,4982804
154 insulin ---> glucose uptake	154 insulin ---> glucose uptake	15,4982804
204 S phase (Cdk2)	218 S phase (Cdk2)	-38,474831
155 HIF-1alpha pathway	173 HIF-1alpha pathway	-43,345221
26 EGF ---> STAT1alpha	24 EGF ---> STAT1alpha	14,9085701
27 ASK1 ---> p38alpha	25 ASK1 ---> p38alpha	14,9085701
115 PRL ---PI3K---> AKT	109 PRL ---PI3K---> AKT	15,5441102
107 p73 pathway	105 p73 pathway	-44,721358
160 Htt pathway	156 Htt pathway	13,0585585
249 insulin ---> AKT-1 pathway	253 insulin ---> AKT-1 pathway	-31,198154
180 IFNalpha, IFNbeta, IFNgamma	182 IFNalpha, IFNbeta, IFNgamma	10,9999045
75 TNF-alpha ---> c-Jun	70 TNF-alpha ---> c-Jun	13,6399571
76 Caspase-9 ---> Caspases	71 Caspase-9 ---> Caspases	13,6399571
77 PRL ---> PAK1	72 PRL ---> PAK1	13,6399571
111 G-alpha-q ---> arachidonic acid	110 G-alpha-q ---> arachidonic acid	-37,005844
112 fMLP ---> superoxide	111 fMLP ---> superoxide	-37,005844

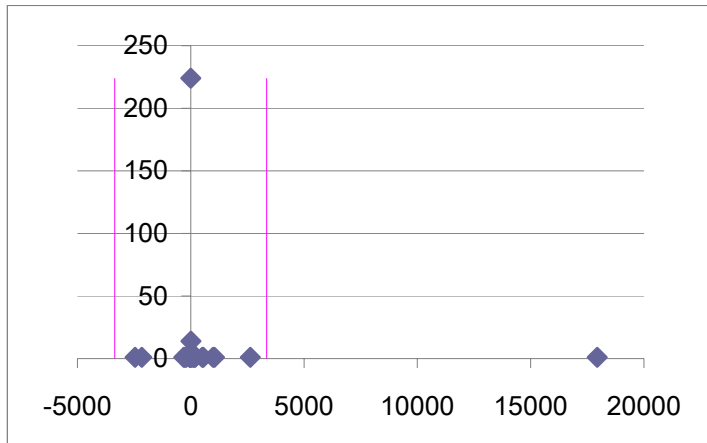
133 RANKL ---> AKT	134 RANKL ---> AKT	10,3899648
103 EDA-A2 ---> c-Jun	31 EDA-A2 ---> c-Jun	1171,75234
37 EGF ---> SHIP1	35 EGF ---> SHIP1	9,89525582
38 Cis ---/ PRLR	36 Cis ---/ PRLR	9,89525582
39 EGF ---> STAT3	37 EGF ---> STAT3	9,89525582
40 SOCS-1 ---/ PRL	38 SOCS-1 ---/ PRL	9,89525582
41 Htt ---/ Caspase-8	39 Htt ---/ Caspase-8	9,89525582
42 SOCS-3 ---/ EpoR	40 SOCS-3 ---/ EpoR	9,89525582
43 SOCS-3 ---/ PRLR	41 SOCS-3 ---/ PRLR	9,89525582
126 cyclosome regulation	128 cyclosome regulation	-30,623926
218 MHC class II ---> NF-AT	217 MHC class II ---> NF-AT	5,54750372
177 LAT ---> p50:RelA	178 LAT ---> p50:RelA	7,21699069
113 PRL ---> Raf-1	108 PRL ---> Raf-1	8,35208957
53 Smac ---/ cIAP-2	52 Smac ---/ cIAP-2	6,99914314
54 SHP-2 ---> PRL	53 SHP-2 ---> PRL	6,99914314
55 Smac ---/ cIAP-1	54 Smac ---/ cIAP-1	6,99914314
56 DLK ---> c-Jun	55 DLK ---> c-Jun	6,99914314
57 beta-arrestin2 ---> c-Jun	56 beta-arrestin2 ---> c-Jun	6,99914314
58 ASK1 ---DUSP19---> c-Jun	58 ASK1 ---DUSP19---> c-Jun	6,99914314
59 PRL ---Gab-2---> PI3K	59 PRL ---Gab-2---> PI3K	6,99914314
60 PDGF B ---> PAK-1	60 PDGF B ---> PAK-1	6,99914314
217 BCR ---> NF-AT	230 BCR ---> NF-AT	-17,426323
144 LAT ---> Ras	136 LAT ---> Ras	5,29360776
145 LAT ---> MLC	137 LAT ---> MLC	5,29360776
146 MHC class I ---> LAT	138 MHC class I ---> LAT	5,29360776
246 Plk1 activation and substrate	251 Plk1 activation and substrate	-84,988851
247 Plk1 cell cycle regulation	252 Plk1 cell cycle regulation	-84,988851
81 MKK3 ---> HNF-1alpha	77 MKK3 ---> HNF-1alpha	5,08985389
82 Epo ---> SHP-1	78 Epo ---> SHP-1	5,08985389
83 GH pathway	79 GH pathway	5,08985389
84 PDGF A ---> Crk	80 PDGF A ---> Crk	5,08985389
85 Apo2L ---> Caspase-10	81 Apo2L ---> Caspase-10	5,08985389
86 GH ---> Grb-2	82 GH ---> Grb-2	5,08985389
87 Nod1 ---> Caspase-9	83 Nod1 ---> Caspase-9	5,08985389
88 JLP ---> JNK1	84 JLP ---> JNK1	5,08985389
192 insulin ---Shc---> MAPK cascade	196 insulin ---Shc---> MAPK cascade	-15,914002
194 OSM pathway	199 OSM pathway	-13,465927
108 insulin ---Jak1---> IRS-1, IR	103 insulin ---Jak1---> IRS-1, IR	3,78638951
109 Src ---> Rap2B	104 Src ---> Rap2B	3,78638951
216 PRL ---Src,FAK1---> ERK	204 PRL ---Src,FAK1---> ERK	1,63845395
232 TNF-alpha ---> NFkappaB	233 TNF-alpha ---> NFkappaB	1,17677813
129 Epo ---> PIP3	125 Epo ---> PIP3	2,84902943
181 OSM ---> ERK	183 OSM ---> ERK	-11,889408
253 dsRNA ---> p50:RelA	248 dsRNA ---> p50:RelA	-37,832157
148 Apaf-1 ---> Caspase-7	148 Apaf-1 ---> Caspase-7	2,22135308
149 Apaf-1 ---> Caspase-3	149 Apaf-1 ---> Caspase-3	2,22135308
150 CD19 ---> PLCgamma2	150 CD19 ---> PLCgamma2	2,22135308
151 Src ---/ RhoA	151 Src ---/ RhoA	2,22135308

183 VEGF-A ---> PLA2	193 VEGF-A ---> PLA2	-9,8382757
156 activin A ---> Smad2	157 activin A ---> Smad2	1,68458086
157 activin A ---> Smad3	158 activin A ---> Smad3	1,68458086
158 PRL ---Fyn---> PI3K	159 PRL ---Fyn---> PI3K	1,68458086
62 ErbB1 ---> endophilin 1	61 ErbB1 ---> endophilin 1	1,94229922
63 TAO1 ---> p38alpha	62 TAO1 ---> p38alpha	1,94229922
64 MLK2 ---> JNK1	63 MLK2 ---> JNK1	1,94229922
65 TAO2 ---MKK6---> p38alp	64 TAO2 ---MKK6---> p38a	1,94229922
66 E1 ---/ ErbB3	65 E1 ---/ ErbB3	1,94229922
67 MLK2 ---MKK3---> p38alp	66 MLK2 ---MKK3---> p38a	1,94229922
68 MLK2 ---MKK6---> p38alp	67 MLK2 ---MKK6---> p38a	1,94229922
69 TAK1 ---> p38alpha	68 TAK1 ---> p38alpha	1,94229922
70 TAO2 ---MKK3---> p38alp	69 TAO2 ---MKK3---> p38a	1,94229922
193 IFNalpha, IFNbeta ---> PI3K	194 IFNalpha, IFNbeta ---> PI	0,89115428
259 BCR ---> ERK	264 BCR ---> ERK	-5,8818629
230 VEGF-A ---> NO	231 VEGF-A ---> NO	0,39384767
231 insulin ---IRS---> PRK2, SH	232 insulin ---IRS---> PRK2, S	0,39384767
91 MEKK3 ---> ATF-2	87 MEKK3 ---> ATF-2	2,83255041
92 MEKK2 ---MKK7---> JNK1	88 MEKK2 ---MKK7---> JN	2,83255041
93 MEKK2 ---> ATF-2	89 MEKK2 ---> ATF-2	2,83255041
94 GCK ---> MKK4	90 GCK ---> MKK4	2,83255041
95 PDGF A ---> SHP-2	91 PDGF A ---> SHP-2	2,83255041
96 MKK4 ---> c-Jun	92 MKK4 ---> c-Jun	2,83255041
97 PDGF B ---> PKR	93 PDGF B ---> PKR	2,83255041
98 TAK1 ---> c-Jun	94 TAK1 ---> c-Jun	2,83255041
99 p38alpha ---> STAT3	95 p38alpha ---> STAT3	2,83255041
100 JNK2 ---> doublecortin	96 JNK2 ---> doublecortin	2,83255041
101 Epo ---Lyn---> STAT5A	97 Epo ---Lyn---> STAT5A	2,83255041
102 MEKK2 ---> ATF-2	98 MEKK2 ---> ATF-2	2,83255041
254 mTOR ----> S6, eIF-4E	249 mTOR ----> S6, eIF-4E	-0,0546737
261 ZAP-70 ---> Elk-1	260 ZAP-70 ---> Elk-1	-0,2583148
262 PDGF A ---> ERK	261 PDGF A ---> ERK	-0,2583148
263 AKT, MAPKAPK2 ---/ tube	262 AKT, MAPKAPK2 ---/ tu	-0,2583148
264 PDGF B ---> ERK	263 PDGF B ---> ERK	-0,2583148
117 MKP-5 ---/ p53; MKK4 --->	112 MKP-5 ---/ p53; MKK4 --	0,89881411
118 VEGF-A ---> Ras	113 VEGF-A ---> Ras	0,89881411
119 PRL ---> Jak2	115 PRL ---> Jak2	0,89881411
120 PDGF B ---> Src	116 PDGF B ---> Src	0,89881411
121 PDGF A ---> Src	117 PDGF A ---> Src	0,89881411
122 SHP-1 ---/ ErbB1	118 SHP-1 ---/ ErbB1	0,89881411
123 CD148 ---/ PDGFRbeta	119 CD148 ---/ PDGFRbeta	0,89881411
124 PRL ---Jak2---> STAT5A	120 PRL ---Jak2---> STAT5A	0,89881411
125 Unc18-1 ---/ PLD2	121 Unc18-1 ---/ PLD2	0,89881411
241 beta-catenin network	247 beta-catenin network	-4,6051022

134 MLK2 ---> NeuroD	139 MLK2 ---> NeuroD	0,60393518
135 PRL ---Src---> STAT5B	140 PRL ---Src---> STAT5B	0,60393518
136 Smac ---> Caspase-3	141 Smac ---> Caspase-3	0,60393518
137 PTEN ---/ AKT-1	142 PTEN ---/ AKT-1	0,60393518
138 Smurf-1 ---/ Smad7, TGFbet	143 Smurf-1 ---/ Smad7, TGFbet	0,60393518
139 Epo ---> STAT5	144 Epo ---> STAT5	0,60393518
140 Htt ---> Ca	145 Htt ---> Ca	0,60393518
141 EDAR ---> TRAF2	146 EDAR ---> TRAF2	0,60393518
142 ASK1 ---MKK4---> JNK1	147 ASK1 ---MKK4---> JNK1	313,010371
143 Fas ---/ Cdc42	147 Fas ---/ Cdc42	0,60393518
250 VEGF-A ---/ Caspase-9, Bac	254 VEGF-A ---/ Caspase-9, E	-3,8067835
251 IL-12 - STAT4 pathway	255 IL-12 - STAT4 pathway	-3,8067835
252 IL-12 ---> STAT4	256 IL-12 ---> STAT4	-3,8067835
174 PDGF B ---> STATs	174 PDGF B ---> STATs	0,37977694
175 JNK1 ---> Bax	175 JNK1 ---> Bax	0,37977694
176 Htt ---> NeuroD	176 Htt ---> NeuroD	0,37977694
260 IFNalpha, IFNbeta ---> STA	266 IFNalpha, IFNbeta ---> S1	-3,1458735
195 PDGF B ---SHP-2---> Ras; I	124 PDGF B ---SHP-2---> Ras	165,760901
196 BMP7 ---> Smad1, Smad5, 8	197 BMP7 ---> Smad1, Smad5, 8	0,0911284
197 SLP-65 ---/ Raf-1	198 SLP-65 ---/ Raf-1	0,0911284
198 PDGF B---/ Ras	126 PDGF B---/ Ras	165,760901
219 IL-22 ---> STAT1alpha, STAT3	219 IL-22 ---> STAT1alpha, S	-0,0369076
220 Fer ---> beta-cateninp{ Tyr142	220 Fer ---> beta-cateninp{ Tyr142	-0,0369076
221 PDGF A ---> AKT-1	221 PDGF A ---> AKT-1	-0,0369076
222 IL-22 pathway	222 IL-22 pathway	-0,0369076
223 IFNalpha, IFNbeta ---> STA	223 IFNalpha, IFNbeta ---> S1	-0,0369076
224 IL-10 pathway	224 IL-10 pathway	-0,0369076
225 PDK1 ---> 4E-BP1, p70S6K	225 PDK1 ---> 4E-BP1, p70S6K	-0,0369076
226 PDGF B ---> AKT-1	226 PDGF B ---> AKT-1	-0,0369076
227 EGF ---> PLD2	227 EGF ---> PLD2	-0,0369076
228 IL-10 ---> STAT1alpha, STAT3	228 IL-10 ---> STAT1alpha, S	-0,0369076
229 CHIP ---/ Pael-R	229 CHIP ---/ Pael-R	-0,0369076
199 PDGF A ---> DAG, IP3	201 PDGF A ---> DAG, IP3	-3,346038
200 PDGF B --> DAG, IP3	202 PDGF B --> DAG, IP3	-3,346038
201 PI3K ---/ p53	203 PI3K ---/ p53	-3,346038
242 TGFbeta ---> Smad2, Smad3	240 TGFbeta ---> Smad2, Smad3	-0,1549776
243 EGF ---> DAG, IP3	241 EGF ---> DAG, IP3	-0,1549776
244 Src ---> Rac1	242 Src ---> Rac1	-0,1549776
245 Rac1 ---> c-Jun, Elk-1	243 Rac1 ---> c-Jun, Elk-1	-0,1549776
272 G2/M phase (cyclin A:Cdk1)	273 G2/M phase (cyclin A:Cdk1)	-2,5988127
255 Csk, CD45 ---> Lck	250 Csk, CD45 ---> Lck	0,57268268
268 Csk, CD45 ---> Fyn	265 Csk, CD45 ---> Fyn	-0,3224388
46 Trx ---/ ASK1	44 Trx ---/ ASK1	0,222805
239 IL-4 - STAT6 pathway	245 IL-4 - STAT6 pathway	-2,1229082

240 IL-4 ---> STAT6	246 IL-4 ---> STAT6	-2,1229082
131 MKK6 ---> Hsp27	131 MKK6 ---> Hsp27	0,00857231
265 Caspase-3 ---/ p53	267 Caspase-3 ---/ p53	-1,3340079
266 IL-8 ---> ERK2	268 IL-8 ---> ERK2	-1,3340079
267 Eps15 ---> ErbB internalizat	269 Eps15 ---> ErbB internaliz	-1,3340079
161 MEK-1 ---> HIF-1alpha	160 MEK-1 ---> HIF-1alpha	-0,0395507
162 MKK6 ---/ MRF4	161 MKK6 ---/ MRF4	-0,0395507
163 p38alpha ---> CREB	162 p38alpha ---> CREB	-0,0395507
164 E1 ---/ alpha-tubulin	163 E1 ---/ alpha-tubulin	-0,0395507
165 MKK6 ---> p53	164 MKK6 ---> p53	-0,0395507
166 MKK4 ---/ RXR-alpha	165 MKK4 ---/ RXR-alpha	-0,0395507
167 MKK4 ---p38alpha---> ATF	166 MKK4 ---p38alpha---> ATF	-0,0395507
168 E1 ---/ synaptotagmin-11	167 E1 ---/ synaptotagmin-11	-0,0395507
169 E1 ---/ beta-tubulin	168 E1 ---/ beta-tubulin	-0,0395507
170 E1 ---/ Septin5	169 E1 ---/ Septin5	-0,0395507
171 E1 ---dorfin---/ synphilin-1	170 E1 ---dorfin---/ synphilin-	-0,0395507
172 MEKK4 ---> JNK1	171 MEKK4 ---> JNK1	-0,0395507
173 E1 ---parkin---/ synphilin-1	172 E1 ---parkin---/ synphilin-	-0,0395507
184 inhibitory phosphorylation o	185 inhibitory phosphorylator	-0,0883916
185 MKK7 ---> c-Jun	186 MKK7 ---> c-Jun	-0,0883916
186 Fas ---> Caspase-8	188 Fas ---> Caspase-8	-0,0883916
187 PP2Calpha ---/ MKK4	189 PP2Calpha ---/ MKK4	-0,0883916
188 PP2Calpha ---/ MKK6	190 PP2Calpha ---/ MKK6	-0,0883916
189 Caspase-6 ---> Caspase-3	191 Caspase-6 ---> Caspase-3	-0,0883916
190 MEKK4 --MKK6---> ATF-2	192 MEKK4 --MKK6---> ATF	-0,0883916
273 IL-2 ---> STAT5	274 IL-2 ---> STAT5	-1,0527245
274 IL-2 - STAT5 pathway	275 IL-2 - STAT5 pathway	-1,0527245
275 OSM ---> STAT1	276 OSM ---> STAT1	-1,0527245
276 c-Kit pathway	277 c-Kit pathway	-1,0527245
205 Rac1 ---/ cofilin	206 Rac1 ---/ cofilin	-0,1344245
206 Fas ---> Abl	207 Fas ---> Abl	-0,1344245
207 E1 ---/ alpha-synuclein	208 E1 ---/ alpha-synuclein	-0,1344245
208 PKCdelta ---> GRK2	114 PKCdelta ---> GRK2	95,3165996
209 VEGF-A ---> STAT1alpha	209 VEGF-A ---> STAT1alph	-0,1344245
210 EGF ---> N-WASP	210 EGF ---> N-WASP	-0,1344245
211 LMW-PTP ---/ VEGFR-1	211 LMW-PTP ---/ VEGFR-1	-0,1344245
212 Fas ---/ SRF	212 Fas ---/ SRF	-0,1344245
213 Fas ---/ NuMA	213 Fas ---/ NuMA	-0,1344245
214 xolloid ---> BMP4	214 xolloid ---> BMP4	-0,1344245
215 Rac1 ---> p38	215 Rac1 ---> p38	-0,1344245
234 Fas ---/ PRK2	235 Fas ---/ PRK2	-0,1806617
235 E1 ---/ cyclin E	236 E1 ---/ cyclin E	-0,1806617
236 Rac1 ---> golgin-160	237 Rac1 ---> golgin-160	-0,1806617
237 MKK4 ---/ PPAR-gamma	238 MKK4 ---/ PPAR-gamma	-0,1806617
238 PDGF B ---> cortactin	239 PDGF B ---> cortactin	-0,1806617

269 Rac1 ---MLK3---> c-Jun	270 Rac1 ---MLK3---> c-Jun	-0,2492288
270 HB-EGF ---> PI3K	271 HB-EGF ---> PI3K	-0,2492288
271 c-Jun degradation	272 c-Jun degradation	-0,2492288
256 POSH ---> JNK1, JNK2	257 POSH ---> JNK1, JNK2	-0,2064972
257 Fas ---> Caspase-2	258 Fas ---> Caspase-2	-0,2064972
258 Ubc9 ---/ p73alpha	259 Ubc9 ---/ p73alpha	-0,2064972



High vs Control 3 table 9

Control Rank	Pathway name	Sample Rank	Pathway name	Delta Score
	1 stress-associated pathways		1 stress-associated pathways	11638894,74
4	EGF pathway	7	EGF pathway	-421019,221
3	JNK pathway	2	JNK pathway	408190,0671
7	Fas pathway	3	Fas pathway	257878,6016
2	p38 pathway	4	p38 pathway	-80286,3689
8	Epo pathway	9	Epo pathway	-35718,3477
5	RANKL pathway	6	RANKL pathway	-34506,4449
17	PRL pathway	19	PRL pathway	-21196,9787
31	Caspase network	21	Caspase network	74266,12147
12	LPS ---> p38	13	LPS ---> p38	-10519,0684
13	LPS ---> JNK	14	LPS ---> JNK	-7577,86852
6	BMP2 ---> p38alpha	5	BMP2 ---> p38alpha	-4465,03542
14	neurotensin pathway	10	neurotensin pathway	5923,723254
24	Apo2L pathway	26	Apo2L pathway	-3983,95855
47	TLR4 pathway	34	TLR4 pathway	8578,951192
105	T-cell antigen receptor path	115	T-cell antigen receptor pat	-3042,03239
50	TGFbeta pathway	110	TGFbeta pathway	-8633,85607
10	JNK1 ---> MKK4	11	JNK1 ---> MKK4	-1990,74804
11	TAK1 ---> ATF-2	12	TAK1 ---> ATF-2	-1990,74804
19	IL-8 pathway	17	IL-8 pathway	2746,78557
116	insulin pathway	130	insulin pathway	-1609,08361
15	RANKL ---> MITF	16	RANKL ---> MITF	-1331,81168
110	B-cell antigen receptor path	120	B-cell antigen receptor pat	-1358,61802
45	LPS ---> NF-kappaB	49	LPS ---> NF-kappaB	-1202,23505
20	Epo ---> ERK1	20	Epo ---> ERK1	-973,443782
9	EGF ---> PAK1	8	EGF ---> PAK1	-685,442109
104	PDGF pathway	80	PDGF pathway	3139,422309
147	E2F network	131	E2F network	1014,812816
16	wnt pathway	15	wnt pathway	1051,382056
106	TLR3 pathway	81	TLR3 pathway	2821,843368
48	alpha Iib beta3 pathway	53	alpha Iib beta3 pathway	-646,316961
49	alpha Iib beta3 ---> Rac1	54	alpha Iib beta3 ---> Rac1	-646,316961
25	EGF ---> ERK	27	EGF ---> ERK	-560,842178
127	IL-1 pathway	139	IL-1 pathway	-477,760138
21	ZAP-70 ---> c-Jun	23	ZAP-70 ---> c-Jun	-450,52295
36	fMLP pathway	33	fMLP pathway	513,5622813
34	IL-1beta ---> c-Jun	38	IL-1beta ---> c-Jun	-349,631585
30	parkin associated pathways	76	parkin associated pathway	-1126,86662
61	IL-1beta ---> Elk-1	77	IL-1beta ---> Elk-1	-317,672939
202	p53 pathway	193	p53 pathway	306,6909574
22	EGF ---> PI3K-C2beta	24	EGF ---> PI3K-C2beta	-266,446045
23	RANKL ---> JNK1	25	RANKL ---> JNK1	-266,446045
32	Epo ---> IP3, PtsIns(3,4)P	35	Epo ---> IP3, PtsIns(3,4)P	-262,233367
18	c-Cbl ---/ ErBB1	18	c-Cbl ---/ ErBB1	-227,747181
78	RhoA ---> stress fiber forma	78	RhoA ---> stress fiber forr	302,7740532
79	RhoA pathway	79	RhoA pathway	302,7740532

44 IFNgamma ---> STAT1alph	22 IFNgamma ---> STAT1alp	3354,003582
28 FasL ---> Caspase-3	31 FasL ---> Caspase-3	-195,307777
29 EGF ---> c-Fos	32 EGF ---> c-Fos	-195,307777
130 TNF-alpha pathway	96 TNF-alpha pathway	1289,819898
179 IL-1beta ---> p50:RelA	190 IL-1beta ---> p50:RelA	-158,226952
33 LAT ---> PKCtheta	37 LAT ---> PKCtheta	-147,96791
132 Rac1 pathway	141 Rac1 pathway	-130,377938
178 IFN pathway	140 IFN pathway	777,8584084
114 BCR ---> c-Jun	119 BCR ---> c-Jun	-119,925934
89 dsRNA ---> IKK-alpha:IKK	39 dsRNA ---> IKK-alpha:IK	1609,377347
72 Aurora-A cell cycle regulati	55 Aurora-A cell cycle regula	127,4447782
73 PPAR pathway	56 PPAR pathway	127,4447782
74 Aurora-A activation, substr	57 Aurora-A activation, subst	127,4447782
71 dsRNA ---> c-Jun	30 dsRNA ---> c-Jun	1824,774994
182 EDAR pathway	152 EDAR pathway	581,5102232
233 VEGF-A pathway	242 VEGF-A pathway	-60,5240533
35 JIP-1 ---> APP	40 JIP-1 ---> APP	-77,4224759
159 G1 phase (Cdk2)	161 G1 phase (Cdk2)	86,99903553
80 LAT ---> cofilin	86 LAT ---> cofilin	-74,7857334
128 BCR ---> p38	136 BCR ---> p38	-78,5815373
90 cyclosome regulatory netwo	85 cyclosome regulatory netw	84,57769281
248 tuberin pathway	258 tuberin pathway	-42,8432818
191 G2/M phase (cyclin B:Cdk1	202 G2/M phase (cyclin B:Cdk	-51,0550984
51 Apo2L ---Caspase-8---> Ca:	51 Apo2L ---Caspase-8---> C	-59,1443205
52 PRL ---IRS---> PI3K	52 PRL ---IRS---> PI3K	-59,1443205
152 BCR ---MLK3---> c-Jun	162 BCR ---MLK3---> c-Jun	-53,1487262
153 BCR ---> cytoskeletal reorg	163 BCR ---> cytoskeletal reor	-53,1487262
154 insulin ---> glucose uptake	164 insulin ---> glucose uptake	-53,1487262
204 S phase (Cdk2)	209 S phase (Cdk2)	53,7410845
155 HIF-1alpha pathway	203 HIF-1alpha pathway	-128,219242
26 EGF ---> STAT1alpha	28 EGF ---> STAT1alpha	-52,1477859
27 ASK1 ---> p38alpha	29 ASK1 ---> p38alpha	-52,1477859
115 PRL ---PI3K---> AKT	118 PRL ---PI3K---> AKT	-52,0505579
107 p73 pathway	95 p73 pathway	68,81829163
160 Htt pathway	186 Htt pathway	-46,8627297
249 insulin ---> AKT-1 pathway	241 insulin ---> AKT-1 pathw	40,55207932
180 IFNalpha, IFNbeta, IFNgam	135 IFNalpha, IFNbeta, IFNga	491,8541315
75 TNF-alpha ---> c-Jun	82 TNF-alpha ---> c-Jun	-46,5874563
76 Caspase-9 ---> Caspases	83 Caspase-9 ---> Caspases	-46,5874563
77 PRL ---> PAK1	84 PRL ---> PAK1	-46,5874563
111 G-alpha-q ---> arachidonic	111 G-alpha-q ---> arachidonic	55,94122313
112 fMLP ---> superoxide	112 fMLP ---> superoxide	55,94122313

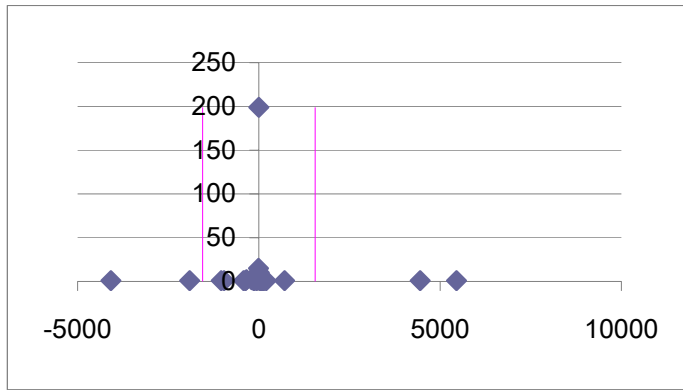
133 RANKL ---> AKT	151 RANKL ---> AKT	-38,1523691
103 EDA-A2 ---> c-Jun	36 EDA-A2 ---> c-Jun	952,0375839
37 EGF ---> SHIP1	41 EGF ---> SHIP1	-36,4183769
38 Cis ---/ PRLR	42 Cis ---/ PRLR	-36,4183769
39 EGF ---> STAT3	43 EGF ---> STAT3	-36,4183769
40 SOCS-1 ---/ PRL	44 SOCS-1 ---/ PRL	-36,4183769
41 Htt ---/ Caspase-8	45 Htt ---/ Caspase-8	-36,4183769
42 SOCS-3 ---/ EpoR	46 SOCS-3 ---/ EpoR	-36,4183769
43 SOCS-3 ---/ PRLR	47 SOCS-3 ---/ PRLR	-36,4183769
126 cyclosome regulation	116 cyclosome regulation	45,42282264
218 MHC class II ---> NF-AT	234 MHC class II ---> NF-AT	-27,3708905
177 LAT ---> p50:RelA	188 LAT ---> p50:RelA	-29,280262
113 PRL ---> Raf-1	117 PRL ---> Raf-1	-31,112375
53 Smac ---/ cIAP-2	58 Smac ---/ cIAP-2	-26,9600855
54 SHP-2 ---> PRL	59 SHP-2 ---> PRL	-26,9600855
55 Smac ---/ cIAP-1	60 Smac ---/ cIAP-1	-26,9600855
56 DLK ---> c-Jun	61 DLK ---> c-Jun	-26,9600855
57 beta-arrestin2 ---> c-Jun	62 beta-arrestin2 ---> c-Jun	-26,9600855
58 ASK1 ---DUSP19---> c-Jun	64 ASK1 ---DUSP19---> c-Jun	-26,9600855
59 PRL ---Gab-2---> PI3K	65 PRL ---Gab-2---> PI3K	-26,9600855
60 PDGF B ---> PAK-1	66 PDGF B ---> PAK-1	-26,9600855
217 BCR ---> NF-AT	210 BCR ---> NF-AT	22,44542492
144 LAT ---> Ras	153 LAT ---> Ras	-22,2804274
145 LAT ---> MLC	154 LAT ---> MLC	-22,2804274
146 MHC class I ---> LAT	155 MHC class I ---> LAT	-22,2804274
246 Plk1 activation and substrat	256 Plk1 activation and substrat	-15,3559823
247 Plk1 cell cycle regulation	257 Plk1 cell cycle regulation	-15,3559823
81 MKK3 ---> HNF-1alpha	87 MKK3 ---> HNF-1alpha	-20,8706987
82 Epo ---> SHP-1	88 Epo ---> SHP-1	-20,8706987
83 GH pathway	89 GH pathway	-20,8706987
84 PDGF A ---> Crk	90 PDGF A ---> Crk	-20,8706987
85 Apo2L ---> Caspase-10	91 Apo2L ---> Caspase-10	-20,8706987
86 GH ---> Grb-2	92 GH ---> Grb-2	-20,8706987
87 Nod1 ---> Caspase-9	93 Nod1 ---> Caspase-9	-20,8706987
88 JLP ---> JNK1	94 JLP ---> JNK1	-20,8706987
192 insulin ---Shc---> MAPK ca	191 insulin ---Shc---> MAPK ca	24,41354329
194 OSM pathway	201 OSM pathway	17,30490127
108 insulin ---Jak1---> IRS-1, IF	113 insulin ---Jak1---> IRS-1, IF	-16,7124695
109 Src ---> Rap2B	114 Src ---> Rap2B	-16,7124695
216 PRL ---Src,FAK1---> ERK	223 PRL ---Src,FAK1---> ERK	-11,8008592
232 TNF-alpha ---> NFkappaB	187 TNF-alpha ---> NFkappaB	200,346878
129 Epo ---> PIP3	133 Epo ---> PIP3	-13,7400603
181 OSM ---> ERK	181 OSM ---> ERK	15,65195708
253 dsRNA ---> p50:RelA	207 dsRNA ---> p50:RelA	165,2506667
148 Apaf-1 ---> Caspase-7	156 Apaf-1 ---> Caspase-7	-11,6029329
149 Apaf-1 ---> Caspase-3	157 Apaf-1 ---> Caspase-3	-11,6029329
150 CD19 ---> PLCgamma2	158 CD19 ---> PLCgamma2	-11,6029329
151 Src ---/ RhoA	160 Src ---/ RhoA	-11,6029329

183 VEGF-A ---> PLA2	189 VEGF-A ---> PLA2	12,56294249
156 activin A ---> Smad2	178 activin A ---> Smad2	-9,9262019
157 activin A ---> Smad3	179 activin A ---> Smad3	-9,9262019
158 PRL ---Fyn---> PI3K	180 PRL ---Fyn---> PI3K	-9,9262019
62 ErbB1 ---> endophilin 1	67 ErbB1 ---> endophilin 1	-10,1507069
63 TAO1 ---> p38alpha	68 TAO1 ---> p38alpha	-10,1507069
64 MLK2 ---> JNK1	69 MLK2 ---> JNK1	-10,1507069
65 TAO2 ---MKK6---> p38alp	70 TAO2 ---MKK6---> p38al	-10,1507069
66 E1 ---/ ErbB3	71 E1 ---/ ErbB3	-10,1507069
67 MLK2 ---MKK3---> p38alp	72 MLK2 ---MKK3---> p38a	-10,1507069
68 MLK2 ---MKK6---> p38alp	73 MLK2 ---MKK6---> p38a	-10,1507069
69 TAK1 ---> p38alpha	74 TAK1 ---> p38alpha	-10,1507069
70 TAO2 ---MKK3---> p38alp	75 TAO2 ---MKK3---> p38al	-10,1507069
193 IFNalpha, IFNbeta ---> PI3I	208 IFNalpha, IFNbeta ---> PI	-7,54161724
203 LPS ----> IRF-3:IRF-7:CBP:	269 LPS ----> IRF-3:IRF-7:CB	-12,4158796
259 BCR ---> ERK	259 BCR ---> ERK	6,21748444
230 VEGF-A ---> NO	239 VEGF-A ---> NO	-6,03018935
231 insulin ---IRS---> PRK2, SF	240 insulin ---IRS---> PRK2, S	-6,03018935
91 MEKK3 ---> ATF-2	97 MEKK3 ---> ATF-2	-7,65084169
92 MEKK2 ---MKK7---> JNK	98 MEKK2 ---MKK7---> JN	-7,65084169
93 MEKK2 ---> ATF-2	99 MEKK2 ---> ATF-2	-7,65084169
94 GCK ---> MKK4	100 GCK ---> MKK4	-7,65084169
95 PDGF A ---> SHP-2	101 PDGF A ---> SHP-2	-7,65084169
96 MKK4 ---> c-Jun	102 MKK4 ---> c-Jun	-7,65084169
97 PDGF B ---> PKR	103 PDGF B ---> PKR	-7,65084169
98 TAK1 ---> c-Jun	104 TAK1 ---> c-Jun	-7,65084169
99 p38alpha ---> STAT3	105 p38alpha ---> STAT3	-7,65084169
100 JNK2 ---> doublecortin	106 JNK2 ---> doublecortin	-7,65084169
101 Epo ---Lyn---> STAT5A	107 Epo ---Lyn---> STAT5A	-7,65084169
102 MEKK2 ---> ATF-2	109 MEKK2 ---> ATF-2	-7,65084169
254 mTOR ----> S6, eIF-4E	260 mTOR ----> S6, eIF-4E	-4,87073307
261 ZAP-70 ---> Elk-1	276 ZAP-70 ---> Elk-1	-12,0651295
262 PDGF A ---> ERK	277 PDGF A ---> ERK	-12,0651295
263 AKT, MAPKAPK2 ---/ tube	278 AKT, MAPKAPK2 ---/ tu	-12,0651295
264 PDGF B ---> ERK	279 PDGF B ---> ERK	-12,0651295
117 MKP-5 ---/ p53; MKK4 --->	121 MKP-5 ---/ p53; MKK4 --	-6,0660348
118 VEGF-A ---> Ras	122 VEGF-A ---> Ras	-6,0660348
119 PRL ---> Jak2	123 PRL ---> Jak2	-6,0660348
120 PDGF B ---> Src	124 PDGF B ---> Src	-6,0660348
121 PDGF A ---> Src	125 PDGF A ---> Src	-6,0660348
122 SHP-1 ---/ ErbB1	126 SHP-1 ---/ ErbB1	-6,0660348
123 CD148 ---/ PDGFRbeta	127 CD148 ---/ PDGFRbeta	-6,0660348
124 PRL ---Jak2---> STAT5A	128 PRL ---Jak2---> STAT5A	-6,0660348
125 Unc18-1 ---/ PLD2	129 Unc18-1 ---/ PLD2	-6,0660348

241 beta-catenin network	238 beta-catenin network	5,022768484
134 MLK2 ---> NeuroD	142 MLK2 ---> NeuroD	-4,98757058
135 PRL ---Src---> STAT5B	143 PRL ---Src---> STAT5B	-4,98757058
136 Smac ---> Caspase-3	144 Smac ---> Caspase-3	-4,98757058
137 PTEN ---/ AKT-1	145 PTEN ---/ AKT-1	-4,98757058
138 Smurf-1 ---/ Smad7, TGFbe	146 Smurf-1 ---/ Smad7, TGFt	-4,98757058
139 Epo ---> STAT5	147 Epo ---> STAT5	-4,98757058
140 Htt ---> Ca	148 Htt ---> Ca	-4,98757058
141 EDAR ---> TRAF2	149 EDAR ---> TRAF2	-4,98757058
142 ASK1 ---MKK4---> JNK1	63 ASK1 ---MKK4---> JNK1	273,5429397
143 Fas ---/ Cdc42	150 Fas ---/ Cdc42	-4,98757058
250 VEGF-A ---/ Caspase-9, Ba	253 VEGF-A ---/ Caspase-9, B	3,942721258
251 IL-12 - STAT4 pathway	254 IL-12 - STAT4 pathway	3,942721258
252 IL-12 ---> STAT4	255 IL-12 ---> STAT4	3,942721258
174 PDGF B ---> STATs	182 PDGF B ---> STATs	-4,20867453
175 JNK1 ---> Bax	183 JNK1 ---> Bax	-4,20867453
176 Htt ---> NeuroD	184 Htt ---> NeuroD	-4,20867453
260 IFNalpha, IFNbeta ---> STA	261 IFNalpha, IFNbeta ---> S1	3,072845791
195 PDGF B ---SHP-2---> Ras;	132 PDGF B ---SHP-2---> Ras	146,2393973
196 BMP7 ---> Smad1, Smad5,	271 BMP7 ---> Smad1, Smad5	-51,9405303
197 SLP-65 ---/ Raf-1	211 SLP-65 ---/ Raf-1	-3,20594827
198 PDGF B---/ Ras	134 PDGF B---/ Ras	146,2393973
219 IL-22 ---> STAT1alpha, ST.	224 IL-22 ---> STAT1alpha, S	-2,83691293
220 Fer ---> beta-cateninp{Tyr1.	225 Fer ---> beta-cateninp{Tyr1	-2,83691293
221 PDGF A ---> AKT-1	226 PDGF A ---> AKT-1	-2,83691293
222 IL-22 pathway	227 IL-22 pathway	-2,83691293
223 IFNalpha, IFNbeta ---> STA	228 IFNalpha, IFNbeta ---> S1	-2,83691293
224 IL-10 pathway	229 IL-10 pathway	-2,83691293
225 PDK1 ---> 4E-BP1, p70S6K	230 PDK1 ---> 4E-BP1, p70S6	-2,83691293
226 PDGF B ---> AKT-1	231 PDGF B ---> AKT-1	-2,83691293
227 EGF ---> PLD2	232 EGF ---> PLD2	-2,83691293
228 IL-10 ---> STAT1alpha, ST.	233 IL-10 ---> STAT1alpha, S	-2,83691293
229 CHIP ---/ Pael-R	159 CHIP ---/ Pael-R	123,1473181
199 PDGF A ---> DAG, IP3	204 PDGF A ---> DAG, IP3	3,757247459
200 PDGF B --> DAG, IP3	205 PDGF B --> DAG, IP3	3,757247459
201 PI3K ---/ p53	206 PI3K ---/ p53	3,757247459
242 TGFbeta ---> Smad2, Smad.	249 TGFbeta ---> Smad2, Sma	-2,52671405
243 EGF ---> DAG, IP3	250 EGF ---> DAG, IP3	-2,52671405
244 Src ---> Rac1	251 Src ---> Rac1	-2,52671405
245 Rac1 ---> c-Jun, Elk-1	252 Rac1 ---> c-Jun, Elk-1	-2,52671405
272 G2/M phase (cyclin A:Cdk1	270 G2/M phase (cyclin A:Cdl	2,374479415
255 Csk, CD45 ---> Lck	262 Csk, CD45 ---> Lck	-2,31662581
268 Csk, CD45 ---> Fyn	280 Csk, CD45 ---> Fyn	-7,23213128
46 Trx ---/ ASK1	48 Trx ---/ ASK1	-2,69609149

239 IL-4 - STAT6 pathway	236 IL-4 - STAT6 pathway	2,13850274
240 IL-4 ---> STAT6	237 IL-4 ---> STAT6	2,13850274
131 MKK6 ---> Hsp27	138 MKK6 ---> Hsp27	-1,4877481
265 Caspase-3 ---/ p53	265 Caspase-3 ---/ p53	1,163056244
266 IL-8 ---> ERK2	266 IL-8 ---> ERK2	1,163056244
267 Eps15 ---> ErbB internalizat	267 Eps15 ---> ErbB internaliz	1,163056244
161 MEK-1 ---> HIF-1alpha	165 MEK-1 ---> HIF-1alpha	-1,24880998
162 MKK6 ---/ MRF4	166 MKK6 ---/ MRF4	-1,24880998
163 p38alpha ---> CREB	167 p38alpha ---> CREB	-1,24880998
164 E1 ---/ alpha-tubulin	168 E1 ---/ alpha-tubulin	-1,24880998
165 MKK6 ---> p53	169 MKK6 ---> p53	-1,24880998
166 MKK4 ---/ RXR-alpha	170 MKK4 ---/ RXR-alpha	-1,24880998
167 MKK4 ---p38alpha---> ATF	171 MKK4 ---p38alpha---> A	-1,24880998
168 E1 ---/ synaptotagmin-11	172 E1 ---/ synaptotagmin-11	-1,24880998
169 E1 ---/ beta-tubulin	173 E1 ---/ beta-tubulin	-1,24880998
170 E1 ---/ Septin5	174 E1 ---/ Septin5	-1,24880998
171 E1 ---dorfin---/ synphilin-1	175 E1 ---dorfin---/ synphilin-	-1,24880998
172 MEKK4 ---> JNK1	176 MEKK4 ---> JNK1	-1,24880998
173 E1 ---parkin---/ synphilin-1	177 E1 ---parkin---/ synphilin-	-1,24880998
184 inhibitory phosphorylation c	194 inhibitory phosphorylation	-1,07801894
185 MKK7 ---> c-Jun	195 MKK7 ---> c-Jun	-1,07801894
186 Fas ---> Caspase-8	197 Fas ---> Caspase-8	-1,07801894
187 PP2Calpha ---/ MKK4	198 PP2Calpha ---/ MKK4	-1,07801894
188 PP2Calpha ---/ MKK6	199 PP2Calpha ---/ MKK6	-1,07801894
189 Caspase-6 ---> Caspase-3	108 Caspase-6 ---> Caspase-3	107,2906629
190 MEKK4 --MKK6---> ATF-	200 MEKK4 --MKK6---> AT	-1,07801894
273 IL-2 ---> STAT5	272 IL-2 ---> STAT5	0,837551705
274 IL-2 - STAT5 pathway	273 IL-2 - STAT5 pathway	0,837551705
275 OSM ---> STAT1	274 OSM ---> STAT1	0,837551705
276 c-Kit pathway	275 c-Kit pathway	0,837551705
205 Rac1 ---/ cofilin	213 Rac1 ---/ cofilin	-0,9487144
206 Fas ---> Abl	214 Fas ---> Abl	-0,9487144
207 E1 ---/ alpha-synuclein	215 E1 ---/ alpha-synuclein	-0,9487144
208 PKCdelta ---> GRK2	216 PKCdelta ---> GRK2	-0,9487144
209 VEGF-A ---> STAT1alpha	217 VEGF-A ---> STAT1alph	-0,9487144
210 EGF ---> N-WASP	218 EGF ---> N-WASP	-0,9487144
211 LMW-PTP ---/ VEGFR-1	219 LMW-PTP ---/ VEGFR-1	-0,9487144
212 Fas ---/ SRF	220 Fas ---/ SRF	-0,9487144
213 Fas ---/ NuMA	221 Fas ---/ NuMA	-0,9487144
215 Rac1 ---> p38	222 Rac1 ---> p38	-0,9487144
234 Fas ---/ PRK2	243 Fas ---/ PRK2	-1,18930953
235 E1 ---/ cyclin E	244 E1 ---/ cyclin E	-1,18930953
236 Rac1 ---> golgin-160	245 Rac1 ---> golgin-160	-1,18930953
237 MKK4 ---/ PPAR-gamma	246 MKK4 ---/ PPAR-gamma	-1,18930953
238 PDGF B ---> cortactin	247 PDGF B ---> cortactin	-1,18930953

269 Rac1 ---MLK3---> c-Jun	281 Rac1 ---MLK3---> c-Jun	-3,795199
270 HB-EGF ---> PI3K	282 HB-EGF ---> PI3K	-3,795199
271 c-Jun degradation	283 c-Jun degradation	-3,795199
256 POSH ---> JNK1, JNK2	263 POSH ---> JNK1, JNK2	-0,77884078
257 Fas ---> Caspase-2	185 Fas ---> Caspase-2	63,64755366
258 Ubc9 ---/ p73alpha	264 Ubc9 ---/ p73alpha	-0,77884078
		39486,65487



High vs.control 4 table 10

Control Rank	Pathway name	Sample Rank	Pathway name	Delta Score
	1 stress-associated pathways		1 stress-associated pathways	105191796
8	EGF pathway	4	EGF pathway	462995,894
2	p38 pathway	3	p38 pathway	-391151,66
4	Epo pathway	8	Epo pathway	-163093,35
3	RANKL pathway	5	RANKL pathway	-157251,58
10	PRL pathway	13	PRL pathway	-102743,87
9	Fas pathway	6	Fas pathway	271210,808
14	JNK pathway	2	JNK pathway	2089743,3
26	Caspase network	28	Caspase network	-15419,937
5	BMP2 ---> p38alpha	7	BMP2 ---> p38alpha	-15411,369
15	Apo2L pathway	22	Apo2L pathway	-16905,354
29	TGFbeta pathway	47	TGFbeta pathway	-12776,428
7	TAK1 ---> ATF-2	11	TAK1 ---> ATF-2	-7083,3837
11	RANKL ---> MITF	12	RANKL ---> MITF	-4815,5778
72	B-cell antigen receptor pat	102	B-cell antigen receptor pathv	-5722,1819
119	T-cell antigen receptor pat	99	T-cell antigen receptor pathw	5918,69113
13	Epo ---> ERK1	16	Epo ---> ERK1	-3500,3722
104	insulin pathway	106	insulin pathway	115,535717
70	PDGF pathway	50	PDGF pathway	2073,71427
6	EGF ---> PAK1	9	EGF ---> PAK1	-2298,629
23	IL-8 pathway	17	IL-8 pathway	4137,65282
39	alpha Iib beta3 pathway	45	alpha Iib beta3 pathway	-2409,425
40	alpha Iib beta3 ---> Rac1	46	alpha Iib beta3 ---> Rac1	-2409,425
20	EGF ---> ERK	23	EGF ---> ERK	-1996,0433
97	IL-1 pathway	122	IL-1 pathway	-1812,4436
16	ZAP-70 ---> c-Jun	19	ZAP-70 ---> c-Jun	-1570,7673
28	IL-1beta ---> c-Jun	33	IL-1beta ---> c-Jun	-1275,4003
105	TLR3 pathway	132	TLR3 pathway	-1249,9803
183	E2F network	155	E2F network	1519,86108
41	IL-1beta ---> Elk-1	51	IL-1beta ---> Elk-1	-1132,9195
19	wnt pathway	15	wnt pathway	1677,34992
62	neurotensin pathway	18	neurotensin pathway	6788,07184
17	EGF ---> PI3K-C2beta	20	EGF ---> PI3K-C2beta	-905,76402
18	RANKL ---> JNK1	21	RANKL ---> JNK1	-905,76402
27	Epo ---> IP3, PtsIns(3,4)P	29	Epo ---> IP3, PtsIns(3,4)P	-906,48501
12	c-Cbl ---/ ErBB1	14	c-Cbl ---/ ErBB1	-757,76979
184	TLR4 pathway	216	TLR4 pathway	-630,42845
21	FasL ---> Caspase-3	26	FasL ---> Caspase-3	-661,43087
22	EGF ---> c-Fos	27	EGF ---> c-Fos	-661,43087
63	RhoA ---> stress fiber forr	85	RhoA ---> stress fiber forma	-556,53785
64	RhoA pathway	86	RhoA pathway	-556,53785
221	p53 pathway	205	p53 pathway	78,177674
68	fMLP pathway	43	fMLP pathway	833,066943
148	IL-1beta ---> p50:RelA	180	IL-1beta ---> p50:RelA	-511,03277
81	LPS ---> p38	101	LPS ---> p38	-483,00318
44	parkin associated pathway	30	parkin associated pathways	709,920599

115 Rac1 pathway	130 Rac1 pathway	-456,61182
94 BCR ---> c-Jun	107 BCR ---> c-Jun	-428,96479
172 EDAR pathway	133 EDAR pathway	550,284665
30 JNK1 ---> MKK4	10 JNK1 ---> MKK4	16283,4563
31 JIP-1 ---> APP	34 JIP-1 ---> APP	-255,35913
69 LAT ---> cofilin	76 LAT ---> cofilin	-261,15483
103 BCR ---> p38	123 BCR ---> p38	-236,62337
185 IFN pathway	177 IFN pathway	382,714258
186 LPS ---> NF-kappaB	200 LPS ---> NF-kappaB	-194,1888
82 IFNgamma ---> STAT1alpha	42 IFNgamma ---> STAT1alpha	1214,99309
42 Apo2L ---Caspase-8---> C	48 Apo2L ---Caspase-8---> Cas	-194,70378
43 PRL ---IRS---> PI3K	49 PRL ---IRS---> PI3K	-194,70378
173 G2/M phase (cyclin B:Cdk1)	184 G2/M phase (cyclin B:Cdk1)	-184,28236
222 tuberin pathway	244 tuberin pathway	-151,34719
130 BCR ---MLK3---> c-Jun	152 BCR ---MLK3---> c-Jun	-179,97632
131 BCR ---> cytoskeletal reorg	153 BCR ---> cytoskeletal reorga	-179,97632
132 insulin ---> glucose uptake	154 insulin ---> glucose uptake	-179,97632
24 EGF ---> STAT1alpha	24 EGF ---> STAT1alpha	-168,57389
25 ASK1 ---> p38alpha	25 ASK1 ---> p38alpha	-168,57389
99 PRL ---PI3K---> AKT	109 PRL ---PI3K---> AKT	-173,79699
146 Htt pathway	156 Htt pathway	-158,77313
100 Aurora-A cell cycle regula	73 Aurora-A cell cycle regulatic	218,289234
101 PPAR pathway	74 PPAR pathway	218,289234
102 Aurora-A activation, subst	75 Aurora-A activation, substrat	218,289234
126 HIF-1alpha pathway	173 HIF-1alpha pathway	-124,37914
195 TNF-alpha pathway	127 TNF-alpha pathway	1230,37046
65 TNF-alpha ---> c-Jun	70 TNF-alpha ---> c-Jun	-153,17025
66 Caspase-9 ---> Caspases	71 Caspase-9 ---> Caspases	-153,17025
67 PRL ---> PAK1	72 PRL ---> PAK1	-153,17025
241 VEGF-A pathway	234 VEGF-A pathway	279,255296
187 G1 phase (Cdk2)	181 G1 phase (Cdk2)	147,923962
71 G-alpha-q ---> arachidonic a	110 G-alpha-q ---> arachidonic a	-170,29343
120 RANKL ---> AKT	134 RANKL ---> AKT	-127,39826
121 dsRNA ---> IKK-alpha:IKK-	135 dsRNA ---> IKK-alpha:IKK-	-127,39826
80 EDA-A2 ---> c-Jun	31 EDA-A2 ---> c-Jun	1037,58962
236 insulin ---> AKT-1 pathwa	253 insulin ---> AKT-1 pathway	-22,421136
32 EGF ---> SHIP1	35 EGF ---> SHIP1	-117,61962
33 Cis ---/ PRLR	36 Cis ---/ PRLR	-117,61962
34 EGF ---> STAT3	37 EGF ---> STAT3	-117,61962
35 SOCS-1 ---/ PRL	38 SOCS-1 ---/ PRL	-117,61962
36 Htt ---/ Caspase-8	39 Htt ---/ Caspase-8	-117,61962
37 SOCS-3 ---/ EpoR	40 SOCS-3 ---/ EpoR	-117,61962

38 SOCS-3 ---/ PRLR	41 SOCS-3 ---/ PRLR	-117,61962
118 cyclosome regulatory netw	100 cyclosome regulatory networ	146,559659
238 S phase (Cdk2)	218 S phase (Cdk2)	90,8759317
153 LAT ---> p50:RelA	178 LAT ---> p50:RelA	-103,19565
154 LPS ---> JNK	179 LPS ---> JNK	-103,19565
98 PRL ---> Raf-1	108 PRL ---> Raf-1	-107,14357
123 p73 pathway	105 p73 pathway	119,870269
45 Smac ---/ cIAP-2	52 Smac ---/ cIAP-2	-86,976546
46 SHP-2 ---> PRL	53 SHP-2 ---> PRL	-86,976546
47 Smac ---/ cIAP-1	54 Smac ---/ cIAP-1	-86,976546
48 DLK ---> c-Jun	55 DLK ---> c-Jun	-86,976546
49 beta-arrestin2 ---> c-Jun	56 beta-arrestin2 ---> c-Jun	-86,976546
50 ASK1 ---DUSP19---> c-Jun	58 ASK1 ---DUSP19---> c-Jun	-86,976546
51 PRL ---Gab-2---> PI3K	59 PRL ---Gab-2---> PI3K	-86,976546
52 PDGF B ---> PAK-1	60 PDGF B ---> PAK-1	-86,976546
116 dsRNA ---> c-Jun	129 dsRNA ---> c-Jun	-85,796732
143 fMLP ---> superoxide	111 fMLP ---> superoxide	97,8976699
124 LAT ---> MLC	137 LAT ---> MLC	-73,234051
125 MHC class I ---> LAT	138 MHC class I ---> LAT	-73,234051
207 IFNalpha, IFNbeta, IFNgam	182 IFNalpha, IFNbeta, IFNgam	238,434187
147 cyclosome regulation	128 cyclosome regulation	79,8180154
73 MKK3 ---> HNF-1alpha	77 MKK3 ---> HNF-1alpha	-67,349652
74 Epo ---> SHP-1	78 Epo ---> SHP-1	-67,349652
75 GH pathway	79 GH pathway	-67,349652
76 PDGF A ---> Crk	80 PDGF A ---> Crk	-67,349652
77 Apo2L ---> Caspase-10	81 Apo2L ---> Caspase-10	-67,349652
78 GH ---> Grb-2	82 GH ---> Grb-2	-67,349652
79 Nod1 ---> Caspase-9	83 Nod1 ---> Caspase-9	-67,349652
249 MHC class II ---> NF-AT	217 MHC class II ---> NF-AT	161,677336
95 insulin ---Jak1---> IRS-1, IR	103 insulin ---Jak1---> IRS-1, IR	-53,994028
96 Src ---> Rap2B	104 Src ---> Rap2B	-53,994028
240 BCR ---> NF-AT	230 BCR ---> NF-AT	38,6252246
194 PRL ---Src,FAK1---> ERK	204 PRL ---Src,FAK1---> ERK	-39,436265
117 Epo ---> PIP3	125 Epo ---> PIP3	-44,489307
223 insulin ---Shc---> MAPK cas	196 insulin ---Shc---> MAPK cas	36,8667001
127 Apaf-1 ---> Caspase-7	148 Apaf-1 ---> Caspase-7	-39,798378
128 Apaf-1 ---> Caspase-3	149 Apaf-1 ---> Caspase-3	-39,798378
129 CD19 ---> PLCgamma2	150 CD19 ---> PLCgamma2	-39,798378
235 OSM pathway	199 OSM pathway	30,2319796
263 Plk1 activation and substrate	251 Plk1 activation and substrate	21,8095729
264 Plk1 cell cycle regulation	252 Plk1 cell cycle regulation	21,8095729
149 activin A ---> Smad2	157 activin A ---> Smad2	-32,277972
150 activin A ---> Smad3	158 activin A ---> Smad3	-32,277972
151 PRL ---Fyn---> PI3K	159 PRL ---Fyn---> PI3K	-32,277972
152 LAT ---> PKCtheta	32 LAT ---> PKCtheta	1488,73646
145 VEGF-A ---> PLA2	193 VEGF-A ---> PLA2	-29,228504
53 ErbB1 ---> endophilin 1	61 ErbB1 ---> endophilin 1	-32,237889
54 TAO1 ---> p38alpha	62 TAO1 ---> p38alpha	-32,237889

55 MLK2 ---> JNK1	63 MLK2 ---> JNK1	-32,237889
56 TAO2 ---MKK6---> p38al	64 TAO2 ---MKK6---> p38alph	-32,237889
57 E1 ---/ ErbB3	65 E1 ---/ ErbB3	-32,237889
58 MLK2 ---MKK3---> p38a	66 MLK2 ---MKK3---> p38alpl	-32,237889
59 MLK2 ---MKK6---> p38a	67 MLK2 ---MKK6---> p38alpl	-32,237889
60 TAK1 ---> p38alpha	68 TAK1 ---> p38alpha	-32,237889
61 TAO2 ---MKK3---> p38al	69 TAO2 ---MKK3---> p38alph	-32,237889
193 OSM ---> ERK	183 OSM ---> ERK	27,7370587
174 IFNalpha, IFNbeta ---> PI	194 IFNalpha, IFNbeta ---> PI3K	-24,805287
192 LAT ---> Ras	136 LAT ---> Ras	193,366101
254 dsRNA ---> p50:RelA	248 dsRNA ---> p50:RelA	16,2372802
83 MEKK3 ---> ATF-2	87 MEKK3 ---> ATF-2	-24,313416
84 MEKK2 ---MKK7---> JNK1	88 MEKK2 ---MKK7---> JNK1	-24,313416
85 MEKK2 ---> ATF-2	89 MEKK2 ---> ATF-2	-24,313416
86 GCK ---> MKK4	90 GCK ---> MKK4	-24,313416
87 PDGF A ---> SHP-2	91 PDGF A ---> SHP-2	-24,313416
88 MKK4 ---> c-Jun	92 MKK4 ---> c-Jun	-24,313416
89 PDGF B ---> PKR	93 PDGF B ---> PKR	-24,313416
90 TAK1 ---> c-Jun	94 TAK1 ---> c-Jun	-24,313416
91 p38alpha ---> STAT3	95 p38alpha ---> STAT3	-24,313416
92 Epo ---Lyn---> STAT5A	97 Epo ---Lyn---> STAT5A	-24,313416
93 MEKK2 ---> ATF-2	98 MEKK2 ---> ATF-2	-24,313416
220 insulin ---IRS---> PRK2, SH	232 insulin ---IRS---> PRK2, SH	-21,659479
237 mTOR ----> S6, eIF-4E	249 mTOR ----> S6, eIF-4E	-16,565762
245 ZAP-70 ---> Elk-1	260 ZAP-70 ---> Elk-1	-15,160344
246 PDGF A ---> ERK	261 PDGF A ---> ERK	-15,160344
247 AKT, MAPKAPK2 ---/ tube	262 AKT, MAPKAPK2 ---/ tube	-15,160344
248 PDGF B ---> ERK	263 PDGF B ---> ERK	-15,160344
106 MKP-5 ---/ p53; MKK4 --	112 MKP-5 ---/ p53; MKK4 --->	-19,37068
107 VEGF-A ---> Ras	113 VEGF-A ---> Ras	-19,37068
108 PRL ----> Jak2	115 PRL ---> Jak2	-19,37068
109 PDGF B ---> Src	116 PDGF B ---> Src	-19,37068
110 PDGF A ---> Src	117 PDGF A ---> Src	-19,37068
111 SHP-1 ---/ ErbB1	118 SHP-1 ---/ ErbB1	-19,37068
112 CD148 ---/ PDGFRbeta	119 CD148 ---/ PDGFRbeta	-19,37068
113 PRL ---Jak2---> STAT5A	120 PRL ---Jak2---> STAT5A	-19,37068
114 Unc18-1 ---/ PLD2	121 Unc18-1 ---/ PLD2	-19,37068
267 BCR ---> ERK	264 BCR ---> ERK	10,3950385
268 TNF-alpha ---> NFkappaE	233 TNF-alpha ---> NFkappaB	107,963262
133 MLK2 ---> NeuroD	139 MLK2 ---> NeuroD	-16,009848
134 PRL ---Src---> STAT5B	140 PRL ---Src---> STAT5B	-16,009848
135 Smac ---> Caspase-3	141 Smac ---> Caspase-3	-16,009848
136 PTEN ---/ AKT-1	142 PTEN ---/ AKT-1	-16,009848
137 Smurf-1 ---/ Smad7, TGFbeta	143 Smurf-1 ---/ Smad7, TGFbeta	-16,009848

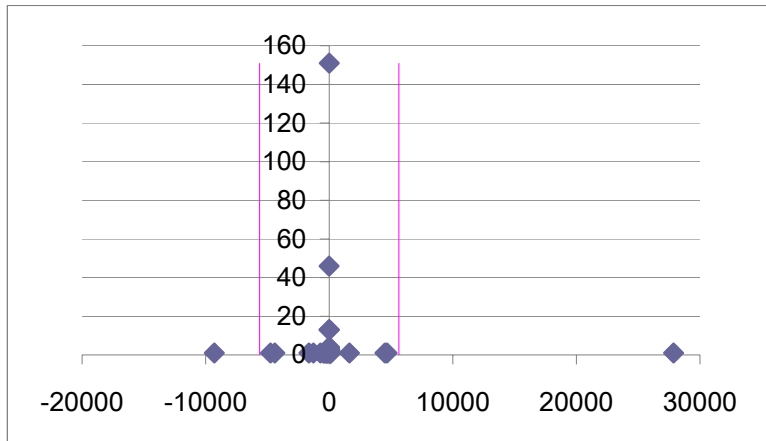
138 Epo ---> STAT5	144 Epo ---> STAT5	-16,009848
139 Htt ---> Ca	145 Htt ---> Ca	-16,009848
140 EDAR ---> TRAF2	146 EDAR ---> TRAF2	-16,009848
141 ASK1 ---MKK4---> JNK1	57 ASK1 ---MKK4---> JNK1	296,396587
142 Fas ---/ Cdc42	147 Fas ---/ Cdc42	-16,009848
155 PDGF B ---> STATs	174 PDGF B ---> STATs	-13,603628
156 JNK1 ---> Bax	175 JNK1 ---> Bax	-13,603628
157 Htt ---> NeuroD	176 Htt ---> NeuroD	-13,603628
158 JLP ---> JNK1	84 JLP ---> JNK1	230,320418
253 beta-catenin network	247 beta-catenin network	8,62837947
188 PDGF B ---SHP-2---> Ras	124 PDGF B ---SHP-2---> Ras; F	155,168227
189 BMP7 ---> Smad1, Smad5	197 BMP7 ---> Smad1, Smad5, S	-10,501545
190 SLP-65 ---/ Raf-1	198 SLP-65 ---/ Raf-1	-10,501545
191 PDGF B---/ Ras	126 PDGF B---/ Ras	155,168227
260 VEGF-A ---/ Caspase-9, B	254 VEGF-A ---/ Caspase-9, Bad	6,66609096
261 IL-12 - STAT4 pathway	255 IL-12 - STAT4 pathway	6,66609096
262 IL-12 ---> STAT4	256 IL-12 ---> STAT4	6,66609096
208 IL-22 ---> STAT1alpha, S	219 IL-22 ---> STAT1alpha, STA	-9,3989128
209 Fer ---> beta-cateninp{Tyr	220 Fer ---> beta-cateninp{Tyr14	-9,3989128
210 PDGF A ---> AKT-1	221 PDGF A ---> AKT-1	-9,3989128
211 IL-22 pathway	222 IL-22 pathway	-9,3989128
212 IFNalpha, IFNbeta ---> ST	223 IFNalpha, IFNbeta ---> STA	-9,3989128
213 IL-10 pathway	224 IL-10 pathway	-9,3989128
214 PDK1 ---> 4E-BP1, p70S6	225 PDK1 ---> 4E-BP1, p70S6K	-9,3989128
215 PDGF B ---> AKT-1	226 PDGF B ---> AKT-1	-9,3989128
216 EGF ---> PLD2	227 EGF ---> PLD2	-9,3989128
217 IL-10 ---> STAT1alpha, S	228 IL-10 ---> STAT1alpha, STA	-9,3989128
218 CHIP ---/ Pael-R	229 CHIP ---/ Pael-R	-9,3989128
219 Src ---/ RhoA	151 Src ---/ RhoA	130,079563
227 TGFbeta ---> Smad2, Sma	240 TGFbeta ---> Smad2, Smad3	-8,4908958
228 Src ---> Rac1	242 Src ---> Rac1	-8,4908958
229 Rac1 ---> c-Jun, Elk-1	243 Rac1 ---> c-Jun, Elk-1	-8,4908958
239 Csk, CD45 ---> Lck	250 Csk, CD45 ---> Lck	-7,7218166
252 Csk, CD45 ---> Fyn	265 Csk, CD45 ---> Fyn	-7,2025036
259 G2/M phase (cyclin A:Cdk1	273 G2/M phase (cyclin A:Cdk1)	-7,2552699
265 IFNalpha, IFNbeta ---> ST	266 IFNalpha, IFNbeta ---> STA	5,08483749
266 VEGF-A ---> NO	231 VEGF-A ---> NO	73,6059617
224 PDGF A ---> DAG, IP3	201 PDGF A ---> DAG, IP3	6,61356684
225 PDGF B --> DAG, IP3	202 PDGF B --> DAG, IP3	6,61356684
226 PI3K ---/ p53	203 PI3K ---/ p53	6,61356684
250 IL-4 - STAT6 pathway	245 IL-4 - STAT6 pathway	3,65170097
251 IL-4 ---> STAT6	246 IL-4 ---> STAT6	3,65170097
122 MKK6 ---> Hsp27	131 MKK6 ---> Hsp27	-4,7672217
258 EGF ---> DAG, IP3	241 EGF ---> DAG, IP3	36,5142819

159 MEK-1 ---> HIF-1alpha	160 MEK-1 ---> HIF-1alpha	-4,4370308
160 MKK6 ---/ MRF4	161 MKK6 ---/ MRF4	-4,4370308
161 p38alpha ---> CREB	162 p38alpha ---> CREB	-4,4370308
162 E1 ---/ alpha-tubulin	163 E1 ---/ alpha-tubulin	-4,4370308
163 MKK6 ---> p53	164 MKK6 ---> p53	-4,4370308
164 MKK4 ---/ RXR-alpha	165 MKK4 ---/ RXR-alpha	-4,4370308
165 MKK4 ---p38alpha---> A1	166 MKK4 ---p38alpha---> ATF	-4,4370308
166 E1 ---/ synaptotagmin-11	167 E1 ---/ synaptotagmin-11	-4,4370308
167 E1 ---/ beta-tubulin	168 E1 ---/ beta-tubulin	-4,4370308
168 E1 ---/ Septin5	169 E1 ---/ Septin5	-4,4370308
169 E1 ---dorfin---/ synphilin-1	170 E1 ---dorfin---/ synphilin-1	-4,4370308
170 MEKK4 ---> JNK1	171 MEKK4 ---> JNK1	-4,4370308
171 E1 ---parkin---/ synphilin-	172 E1 ---parkin---/ synphilin-1	-4,4370308
175 inhibitory phosphorylation	185 inhibitory phosphorylation of	-3,5285167
176 MKK7 ---> c-Jun	186 MKK7 ---> c-Jun	-3,5285167
177 Fas ---> Caspase-8	188 Fas ---> Caspase-8	-3,5285167
178 JNK2 ---> doublecortin	96 JNK2 ---> doublecortin	116,440801
179 PP2Calpha ---/ MKK4	189 PP2Calpha ---/ MKK4	-3,5285167
180 PP2Calpha ---/ MKK6	190 PP2Calpha ---/ MKK6	-3,5285167
181 Caspase-6 ---> Caspase-3	191 Caspase-6 ---> Caspase-3	-3,5285167
182 MEKK4 --MKK6---> ATI	192 MEKK4 --MKK6---> ATF-2	-3,5285167
269 IL-8 ---> ERK2	268 IL-8 ---> ERK2	1,87059059
270 Eps15 ---> ErbB internaliz	269 Eps15 ---> ErbB internalizati	1,87059059
196 Rac1 ---/ cofilin	206 Rac1 ---/ cofilin	-3,156909
197 Fas ---> Abl	207 Fas ---> Abl	-3,156909
198 E1 ---/ alpha-synuclein	208 E1 ---/ alpha-synuclein	-3,156909
199 PKCdelta ---> GRK2	114 PKCdelta ---> GRK2	92,294115
200 VEGF-A ---> STAT1alph:	209 VEGF-A ---> STAT1alpha	-3,156909
201 EGF ---> N-WASP	210 EGF ---> N-WASP	-3,156909
202 LMW-PTP ---/ VEGFR-1	211 LMW-PTP ---/ VEGFR-1	-3,156909
203 Fas ---/ SRF	212 Fas ---/ SRF	-3,156909
204 Fas ---/ NuMA	213 Fas ---/ NuMA	-3,156909
205 xolloid ---> BMP4	214 xolloid ---> BMP4	-3,156909
206 Rac1 ---> p38	215 Rac1 ---> p38	-3,156909
230 Fas ---/ PRK2	235 Fas ---/ PRK2	-2,8648569
231 E1 ---/ cyclin E	236 E1 ---/ cyclin E	-2,8648569
232 Rac1 ---> golgin-160	237 Rac1 ---> golgin-160	-2,8648569
233 MKK4 ---/ PPAR-gamma	238 MKK4 ---/ PPAR-gamma	-2,8648569
234 PDGF B ---> cortactin	239 PDGF B ---> cortactin	-2,8648569
255 Rac1 ---MLK3---> c-Jun	270 Rac1 ---MLK3---> c-Jun	-2,484075
256 HB-EGF ---> PI3K	271 HB-EGF ---> PI3K	-2,484075
257 c-Jun degradation	272 c-Jun degradation	-2,484075
242 Fas ---> Caspase-2	258 Fas ---> Caspase-2	-2,6760645
243 Ubc9 ---/ p73alpha	259 Ubc9 ---/ p73alpha	-2,6760645
271 IL-2 ---> STAT5	274 IL-2 ---> STAT5	1,28127444

272 IL-2 - STAT5 pathway
273 OSM ---> STAT1
274 c-Kit pathway

275 IL-2 - STAT5 pathway
276 OSM ---> STAT1
277 c-Kit pathway

1,28127444
1,28127444
1,28127444



High vs low 1 table 11

Control Rank	Pathway name	Sample Rank	Pathway name	Delta Score
	1 stress-associated pathways		1 stress-associated pathways	45725058,3
	4 JNK pathway		2 JNK pathway	561448,091
	7 EGF pathway		7 EGF pathway	524319,933
	3 Epo pathway		9 Epo pathway	-105398,32
	8 PRL pathway		19 PRL pathway	-65534,718
	6 RANKL pathway		6 RANKL pathway	50930,7926
	2 IFNgamma ---> STAT1alpha		22 IFNgamma ---> STAT1alpha	-79734,99
	26 TLR3 pathway		81 TLR3 pathway	-14481,579
	18 IFN pathway		140 IFN pathway	-20173,529
	60 insulin pathway		130 insulin pathway	-12421,94
	13 IFNalpha, IFNbeta, IFNgamma --->		135 IFNalpha, IFNbeta, IFNgamma	-15830,408
	94 T-cell antigen receptor pathway		115 T-cell antigen receptor pathway	-23,432629
	42 PDGF pathway		80 PDGF pathway	-4225,4099
	68 Fas pathway		3 Fas pathway	647984,666
	11 Epo ---> ERK1		20 Epo ---> ERK1	-1975,5089
	9 BMP2 ---> p38alpha		5 BMP2 ---> p38alpha	18215,9789
	87 TLR4 pathway		34 TLR4 pathway	19836,848
	100 E2F network		131 E2F network	23,2697996
	5 EGF ---> PAK1		8 EGF ---> PAK1	-1106,1736
	111 B-cell antigen receptor pathway		120 B-cell antigen receptor pathway	1040,2551
	40 alpha Iib beta3 pathway		53 alpha Iib beta3 pathway	-1406,7947
	41 alpha Iib beta3 ---> Rac1		54 alpha Iib beta3 ---> Rac1	-1406,7947
	19 EGF ---> ERK		27 EGF ---> ERK	-1084,3127
	99 IL-1 pathway		139 IL-1 pathway	-965,09918
	208 Caspase network		21 Caspase network	140621,676
	15 ZAP-70 ---> c-Jun		23 ZAP-70 ---> c-Jun	-821,79742
	43 IL-8 pathway		17 IL-8 pathway	12170,4674
	74 p38 pathway		4 p38 pathway	267706,1
	12 TAK1 ---> ATF-2		12 TAK1 ---> ATF-2	10378,1529
	14 wnt pathway		15 wnt pathway	3364,60684
	47 neurotensin pathway		10 neurotensin pathway	29087,6033
	28 IL-1beta ---> c-Jun		38 IL-1beta ---> c-Jun	-678,06087
	20 RANKL ---> MITF		16 RANKL ---> MITF	5833,58975
	21 dsRNA ---> c-Jun		30 dsRNA ---> c-Jun	-600,24118
	178 p53 pathway		193 p53 pathway	-282,88153
	16 EGF ---> PI3K-C2beta		24 EGF ---> PI3K-C2beta	-436,4536
	17 RANKL ---> JNK1		25 RANKL ---> JNK1	-436,4536
	27 Epo ---> IP3, PtsIns(3,4)P		35 Epo ---> IP3, PtsIns(3,4)P	-448,35039
	10 c-Cbl ---/ ErBB1		18 c-Cbl ---/ ErBB1	-336,23052
	48 RhoA ---> stress fiber formation		78 RhoA ---> stress fiber formation	29,0101013
	49 RhoA pathway		79 RhoA pathway	29,0101013
	57 fMLP pathway		33 fMLP pathway	1712,57019
	22 EGF ---> c-Fos		32 EGF ---> c-Fos	-307,31861
	142 Apo2L pathway		26 Apo2L pathway	17865,187
	151 IL-1beta ---> p50:RelA		190 IL-1beta ---> p50:RelA	-220,78058
	196 TGFbeta pathway		110 TGFbeta pathway	7515,50746

89 BCR ---> c-Jun	119 BCR ---> c-Jun	-190,40999
90 IL-1beta ---> Elk-1	77 IL-1beta ---> Elk-1	1224,65915
124 G2/M phase (cyclin B:Cdk1)	202 G2/M phase (cyclin B:Cdk1)	-703,32354
29 Aurora-A cell cycle regulation	55 Aurora-A cell cycle regulation	-115,96718
30 Aurora-A activation, substrates and	57 Aurora-A activation, substrates :	-115,96718
69 dsRNA ---> IKK-alpha:IKK-beta{f	39 dsRNA ---> IKK-alpha:IKK-bet	1557,34901
24 GH pathway	89 GH pathway	-986,73164
25 GH ---> Grb-2	92 GH ---> Grb-2	-986,73164
88 parkin associated pathways	76 parkin associated pathways	729,023145
202 VEGF-A pathway	242 VEGF-A pathway	-42,754393
31 JIP-1 ---> APP	40 JIP-1 ---> APP	-96,869381
45 cyclosome regulatory network	85 cyclosome regulatory network	-62,721722
101 BCR ---> p38	136 BCR ---> p38	-93,721959
180 LPS ---> NF-kappaB	49 LPS ---> NF-kappaB	6644,40473
167 Rac1 pathway	141 Rac1 pathway	540,331277
120 dsRNA ---> p50:RelA	207 dsRNA ---> p50:RelA	-439,66476
46 PRL ---IRS---> PI3K	52 PRL ---IRS---> PI3K	-68,73924
214 tuberin pathway	258 tuberin pathway	-18,761434
215 insulin ---> AKT-1 pathway	241 insulin ---> AKT-1 pathway	-58,451059
143 LPS ---> p38	13 LPS ---> p38	50676,3029
144 BCR ---MLK3---> c-Jun	162 BCR ---MLK3---> c-Jun	-56,196779
145 insulin ---> glucose uptake	164 insulin ---> glucose uptake	-56,196779
23 EGF ---> STAT1alpha	28 EGF ---> STAT1alpha	-52,756915
98 PRL ---PI3K---> AKT	118 PRL ---PI3K---> AKT	-57,894603
189 TNF-alpha pathway	96 TNF-alpha pathway	2589,20275
61 IL-22 ---> STAT1alpha, STAT3	224 IL-22 ---> STAT1alpha, STAT3	-562,53018
62 IL-22 pathway	227 IL-22 pathway	-562,53018
63 TNF-alpha ---> c-Jun	82 TNF-alpha ---> c-Jun	-49,661556
64 IL-10 pathway	229 IL-10 pathway	-562,53018
65 IL-10 ---> STAT1alpha, STAT3	233 IL-10 ---> STAT1alpha, STAT3	-562,53018
66 PRL ---> PAK1	84 PRL ---> PAK1	-49,661556
206 EDAR pathway	152 EDAR pathway	995,351723
67 cyclosome regulation	116 cyclosome regulation	-17,035355
125 RANKL ---> AKT	151 RANKL ---> AKT	-34,549688
229 G1 phase (Cdk2)	161 G1 phase (Cdk2)	490,941548
72 EDA-A2 ---> c-Jun	36 EDA-A2 ---> c-Jun	953,496669
73 LAT ---> PKCtheta	37 LAT ---> PKCtheta	953,496669
243 S phase (Cdk2)	209 S phase (Cdk2)	263,690202
32 EGF ---> SHIP1	41 EGF ---> SHIP1	-32,79562
33 Cis ---/ PRLR	42 Cis ---/ PRLR	-32,79562
34 VEGF-A ---> Ras	122 VEGF-A ---> Ras	-409,79977
35 EGF ---> STAT3	43 EGF ---> STAT3	-32,79562

36 PKCdelta ---> GRK2	216 PKCdelta ---> GRK2	-497,40072
37 SOCS-1 ---/ PRL	44 SOCS-1 ---/ PRL	-32,79562
38 SOCS-3 ---/ EpoR	46 SOCS-3 ---/ EpoR	-32,79562
39 SOCS-3 ---/ PRLR	47 SOCS-3 ---/ PRLR	-32,79562
149 PPAR pathway	56 PPAR pathway	734,691807
152 LAT ---> p50:RelA	188 LAT ---> p50:RelA	-20,57155
153 LPS ---> JNK	14 LPS ---> JNK	39162,3445
95 PRL ---> Raf-1	117 PRL ---> Raf-1	-31,54253
96 IL-4 - STAT6 pathway	236 IL-4 - STAT6 pathway	-405,49001
97 IL-4 ---> STAT6	237 IL-4 ---> STAT6	-405,49001
122 G-alpha-q ---> arachidonic acid, EI	111 G-alpha-q ---> arachidonic acid,	225,383493
123 fMLP ---> superoxide	112 fMLP ---> superoxide	225,383493
218 HIF-1alpha pathway	203 HIF-1alpha pathway	184,743173
50 SHP-2 ---> PRL	59 SHP-2 ---> PRL	-21,721713
51 DLK ---> c-Jun	61 DLK ---> c-Jun	-21,721713
52 beta-arrestin2 ---> c-Jun	62 beta-arrestin2 ---> c-Jun	-21,721713
53 ASK1 ---MKK4---> JNK1	63 ASK1 ---MKK4---> JNK1	-21,721713
54 ASK1 ---DUSP19---> c-Jun	64 ASK1 ---DUSP19---> c-Jun	-21,721713
55 PRL ---Gab-2---> PI3K	65 PRL ---Gab-2---> PI3K	-21,721713
56 PDGF B ---> PAK-1	66 PDGF B ---> PAK-1	-21,721713
118 IFNalpha, IFNbeta ---> PI3K	208 IFNalpha, IFNbeta ---> PI3K	-241,26753
179 BCR ---> cytoskeletal reorganizatic	163 BCR ---> cytoskeletal reorganiz:	314,665406
207 OSM pathway	201 OSM pathway	-38,781878
70 Epo ---> SHP-1	88 Epo ---> SHP-1	-14,240213
71 PDGF A ---> Crk	90 PDGF A ---> Crk	-14,240213
146 AhR pathway	50 AhR pathway	440,242927
147 Plk1 activation and substrates	256 Plk1 activation and substrates	5,47321379
148 Plk1 cell cycle regulation	257 Plk1 cell cycle regulation	5,47321379
242 MHC class II ---> NF-AT	234 MHC class II ---> NF-AT	188,926349
230 BCR ---> NF-AT	210 BCR ---> NF-AT	110,455718
231 p73 pathway	95 p73 pathway	485,922398
170 mTOR ----> S6, eIF-4E	260 mTOR ----> S6, eIF-4E	-138,81219
91 JNK1 ---> MKK4	11 JNK1 ---> MKK4	14161,8518
92 insulin ---Jak1---> IRS-1, IRS-2	113 insulin ---Jak1---> IRS-1, IRS-2	-9,1331725
93 Src ---> Rap2B	114 Src ---> Rap2B	-9,1331725
195 insulin ---Shc---> MAPK cascade	191 insulin ---Shc---> MAPK cascad	103,549441
169 Htt pathway	186 Htt pathway	399,901996
188 PRL ---Src,FAK1---> ERK	223 PRL ---Src,FAK1---> ERK	1,68608298
112 PDGF B ---SHP-2---> Ras; PDGF	132 PDGF B ---SHP-2---> Ras; PDC	-5,4377873
113 Epo ---> PIP3	133 Epo ---> PIP3	-5,4377873
114 IL-2 ---> STAT5	272 IL-2 ---> STAT5	-203,61771
115 IL-2 - STAT5 pathway	273 IL-2 - STAT5 pathway	-203,61771
116 PDGF B---/ Ras	134 PDGF B---/ Ras	-5,4377873
117 OSM ---> STAT1	274 OSM ---> STAT1	-203,61771
234 OSM ---> ERK	181 OSM ---> ERK	44,4534635
126 IFNalpha, IFNbeta ---> STAT5	228 IFNalpha, IFNbeta ---> STAT5	-131,03591
127 Apaf-1 ---> Caspase-7	156 Apaf-1 ---> Caspase-7	-5,0516759
128 PDK1 ---> 4E-BP1, p70S6K1	230 PDK1 ---> 4E-BP1, p70S6K1	-131,03591

129 Apaf-1 ---> Caspase-3	157 Apaf-1 ---> Caspase-3	-5,0516759
130 Caspase-9 ---> Caspases	83 Caspase-9 ---> Caspases	381,832717
131 CD19 ---> PLCgamma2	158 CD19 ---> PLCgamma2	-5,0516759
132 Src ---/ RhoA	160 Src ---/ RhoA	-5,0516759
150 PRL ---Fyn---> PI3K	180 PRL ---Fyn---> PI3K	-0,9970638
58 ErbB1 ---> endophilin 1	67 ErbB1 ---> endophilin 1	-2,7491326
59 MLK2 ---> JNK1	69 MLK2 ---> JNK1	-2,7491326
177 dsRNA ---> IRF-7:IRF-3:CBP:p30	212 dsRNA ---> IRF-7:IRF-3:CBP:p	-88,721794
183 LAT ---> Ras	153 LAT ---> Ras	194,984406
184 LAT ---> MLC	154 LAT ---> MLC	194,984406
185 G2/M phase (cyclin A:Cdk1)	270 G2/M phase (cyclin A:Cdk1)	-71,324102
186 LAT ---> cofilin	86 LAT ---> cofilin	703,753574
187 MHC class I ---> LAT	155 MHC class I ---> LAT	194,984406
203 IFNalpha, IFNbeta ---> STAT1alpha	261 IFNalpha, IFNbeta ---> STAT1a	-51,802438
204 VEGF-A ---> NO	239 VEGF-A ---> NO	2,90626503
205 insulin ---IRS---> PRK2, SHP-2, M	240 insulin ---IRS---> PRK2, SHP-2	2,90626503
75 MEKK2 ---MKK7---> JNK1	98 MEKK2 ---MKK7---> JNK1	-2,1965545
77 MEKK2 ---> ATF-2	99 MEKK2 ---> ATF-2	-2,1965545
78 GCK ---> MKK4	100 GCK ---> MKK4	-2,1965545
79 PDGF A ---> SHP-2	101 PDGF A ---> SHP-2	-2,1965545
80 MKK4 ---> c-Jun	102 MKK4 ---> c-Jun	-2,1965545
81 PDGF B ---> PKR	103 PDGF B ---> PKR	-2,1965545
82 TAK1 ---> c-Jun	104 TAK1 ---> c-Jun	-2,1965545
83 Epo ---Lyn---> STAT5A	107 Epo ---Lyn---> STAT5A	-2,1965545
84 Caspase-6 ---> Caspase-3	108 Caspase-6 ---> Caspase-3	-2,1965545
85 MEKK2 ---> ATF-2	109 MEKK2 ---> ATF-2	-2,1965545
86 ASK1 ---> p38alpha	29 ASK1 ---> p38alpha	530,228483
247 VEGF-A ---> PLA2	189 VEGF-A ---> PLA2	83,7419762
219 VEGF-A ---/ Caspase-9, Bad	253 VEGF-A ---/ Caspase-9, Bad	-30,246301
220 IL-12 - STAT4 pathway	254 IL-12 - STAT4 pathway	-30,246301
221 IL-12 ---> STAT4	255 IL-12 ---> STAT4	-30,246301
235 beta-catenin network	238 beta-catenin network	-9,110268
240 PDGF A ---> ERK	277 PDGF A ---> ERK	-0,2337906
241 PDGF B ---> ERK	279 PDGF B ---> ERK	-0,2337906
252 BCR ---> ERK	259 BCR ---> ERK	38,8039114
253 TNF-alpha ---> NFkappaB	187 TNF-alpha ---> NFkappaB	321,813715
216 TBK1:TRIF:IKK-i ---> p50:RelA	137 TBK1:TRIF:IKK-i ---> p50:Rel	90,7259346
217 LPS ---> IRF-3:IRF-7:CBP:p300	269 LPS ---> IRF-3:IRF-7:CBP:p300	22,9471847
102 MKP-5 ---/ p53; MKK4 ---> p53	121 MKP-5 ---/ p53; MKK4 ---> p53	0,41061544
103 VEGF-A ---> STAT1alpha	217 VEGF-A ---> STAT1alpha	-87,190329
104 PRL ---> Jak2	123 PRL ---> Jak2	0,41061544
105 PDGF B ---> Src	124 PDGF B ---> Src	0,41061544
106 LMW-PTP ---/ VEGFR-1	219 LMW-PTP ---/ VEGFR-1	-87,190329
107 PDGF A ---> Src	125 PDGF A ---> Src	0,41061544

108 SHP-1 ---/ ErbB1	126 SHP-1 ---/ ErbB1	0,41061544
109 CD148 ---/ PDGFRbeta	127 CD148 ---/ PDGFRbeta	0,41061544
110 PRL ---Jak2---> STAT5A	128 PRL ---Jak2---> STAT5A	0,41061544
232 ZAP-70 ---> Elk-1	276 ZAP-70 ---> Elk-1	22,2595101
233 AKT, MAPKAPK2 ---/ tuberlin	278 AKT, MAPKAPK2 ---/ tuberlin	22,2595101
133 Smac ---/ cIAP-2	58 Smac ---/ cIAP-2	279,928006
134 PRL ---Src---> STAT5B	143 PRL ---Src---> STAT5B	1,39749603
135 Smac ---> Caspase-3	144 Smac ---> Caspase-3	1,39749603
136 PTEN ---/ AKT-1	145 PTEN ---/ AKT-1	1,39749603
138 Epo ---> STAT5	147 Epo ---> STAT5	1,39749603
139 Smac ---/ cIAP-1	60 Smac ---/ cIAP-1	279,928006
140 EDAR ---> TRAF2	149 EDAR ---> TRAF2	1,39749603
163 PDGF B ---> STATs	182 PDGF B ---> STATs	2,19846028
164 JNK1 ---> Bax	183 JNK1 ---> Bax	2,19846028
165 Nod1 ---> Caspase-9	93 Nod1 ---> Caspase-9	220,444554
166 JLP ---> JNK1	94 JLP ---> JNK1	220,444554
181 SLP-65 ---/ Raf-1	211 SLP-65 ---/ Raf-1	3,22986519
182 c-Kit pathway	275 c-Kit pathway	-45,504717
197 Fer ---> beta-cateninp{Tyr142}	225 Fer ---> beta-cateninp{Tyr142}	3,78142273
198 PDGF A ---> AKT-1	226 PDGF A ---> AKT-1	3,78142273
200 PDGF B ---> AKT-1	231 PDGF B ---> AKT-1	3,78142273
201 CHIP ---/ Pael-R	159 CHIP ---/ Pael-R	129,765654
226 EGF ---> DAG, IP3	250 EGF ---> DAG, IP3	4,32747126
227 Src ---> Rac1	251 Src ---> Rac1	4,32747126
228 Rac1 ---> c-Jun, Elk-1	252 Rac1 ---> c-Jun, Elk-1	4,32747126
236 Csk, CD45 ---> Lck	262 Csk, CD45 ---> Lck	3,99950374
244 Csk, CD45 ---> Fyn	280 Csk, CD45 ---> Fyn	-0,0297741
209 PDGF A ---> DAG, IP3	204 PDGF A ---> DAG, IP3	21,7991272
212 PDGF B --> DAG, IP3	205 PDGF B --> DAG, IP3	21,7991272
213 PI3K ---/ p53	206 PI3K ---/ p53	21,7991272
44 Trx ---/ ASK1	48 Trx ---/ ASK1	1,56437084
237 VHL ---> HIF-1alpha degradation	235 VHL ---> HIF-1alpha degradatic	14,1141785
245 activin A ---> Smad2	178 activin A ---> Smad2	148,741582
246 activin A ---> Smad3	179 activin A ---> Smad3	148,741582
121 MKK6 ---> Hsp27	138 MKK6 ---> Hsp27	1,76051139
154 MEK-1 ---> HIF-1alpha	165 MEK-1 ---> HIF-1alpha	1,49529836
155 p38alpha ---> CREB	167 p38alpha ---> CREB	1,49529836
156 MKK4 ---/ RXR-alpha	170 MKK4 ---/ RXR-alpha	1,49529836
157 MLK2 ---MKK3---> p38alpha	72 MLK2 ---MKK3---> p38alpha	144,308366
159 MLK2 ---MKK6---> p38alpha	73 MLK2 ---MKK6---> p38alpha	144,308366
160 TAK1 ---> p38alpha	74 TAK1 ---> p38alpha	144,308366
161 MEKK4 ---> JNK1	176 MEKK4 ---> JNK1	1,49529836
255 FasL ---> Caspase-3	31 FasL ---> Caspase-3	1857,8568
256 Caspase-3 ---/ p53	265 Caspase-3 ---/ p53	9,08069709

257 IL-8 ---> ERK2	266 IL-8 ---> ERK2	9,08069709
258 EGF ---> PLD2	232 EGF ---> PLD2	47,3696495
260 Eps15 ---> ErbB internalization	267 Eps15 ---> ErbB internalization	9,08069709
261 Hsp90 ---> AhR	268 Hsp90 ---> AhR	9,08069709
171 MEKK3 ---> ATF-2	97 MEKK3 ---> ATF-2	110,386743
172 MKK7 ---> c-Jun	195 MKK7 ---> c-Jun	2,01806138
173 p38alpha ---> STAT3	105 p38alpha ---> STAT3	110,386743
174 JNK2 ---> doublecortin	106 JNK2 ---> doublecortin	110,386743
175 PP2Calpha ---/ MKK4	198 PP2Calpha ---/ MKK4	2,01806138
176 PP2Calpha ---/ MKK6	199 PP2Calpha ---/ MKK6	2,01806138
190 EGF ---> N-WASP	218 EGF ---> N-WASP	2,2207444
191 Fas ---/ SRF	220 Fas ---/ SRF	2,2207444
192 Fas ---/ NuMA	221 Fas ---/ NuMA	2,2207444
193 Unc18-1 ---/ PLD2	129 Unc18-1 ---/ PLD2	89,8216893
194 Rac1 ---> p38	222 Rac1 ---> p38	2,2207444
222 E1 ---/ cyclin E	244 E1 ---/ cyclin E	2,10795394
223 Rac1 ---> golgin-160	245 Rac1 ---> golgin-160	2,10795394
224 MKK4 ---/ PPAR-gamma	246 MKK4 ---/ PPAR-gamma	2,10795394
225 PDGF B ---> cortactin	247 PDGF B ---> cortactin	2,10795394
248 Rac1 ---MLK3---> c-Jun	281 Rac1 ---MLK3---> c-Jun	-0,2674844
249 HB-EGF ---> PI3K	282 HB-EGF ---> PI3K	-0,2674844
250 Hsp90 ---> AhR	284 Hsp90 ---> AhR	-0,2674844
239 POSH ---> JNK1, JNK2	263 POSH ---> JNK1, JNK2	2,5779047
262 Apo2L ---Caspase-8---> Caspase-3	51 Apo2L ---Caspase-8---> Caspas	688,758864

High vs low 3 table 13

Control Rank	Pathway name	Sample Rank	Pathway name	Delta Score
	1 stress-associated pathways		1 stress-associated pathway:	31017723,2
6	EGF pathway	7	EGF pathway	-452781,32
2	p38 pathway	4	p38 pathway	-283765,24
10	JNK pathway	2	JNK pathway	912668,16
9	Fas pathway	3	Fas pathway	362049,87
4	Epo pathway	9	Epo pathway	-122692,81
3	RANKL pathway	6	RANKL pathway	-119830,57
11	PRL pathway	19	PRL pathway	-74662,911
29	Caspase network	21	Caspase network	76117,4736
5	BMP2 ---> p38alpha	5	BMP2 ---> p38alpha	-13346,886
18	Apo2L pathway	26	Apo2L pathway	-13414,263
39	TGFbeta pathway	110	TGFbeta pathway	-15427,815
8	TAK1 ---> ATF-2	12	TAK1 ---> ATF-2	-6114,3767
104	T-cell antigen receptor pat	115	T-cell antigen receptor pat	-1432,2909
12	RANKL ---> MITF	16	RANKL ---> MITF	-4119,7091
80	B-cell antigen receptor pat	120	B-cell antigen receptor pa	-4560,7731
14	Epo ---> ERK1	20	Epo ---> ERK1	-3002,5293
125	insulin pathway	130	insulin pathway	-161,93997
7	EGF ---> PAK1	8	EGF ---> PAK1	-2044,2147
77	PDGF pathway	80	PDGF pathway	1301,63304
40	alpha Iib beta3 pathway	53	alpha Iib beta3 pathway	-2079,6905
41	alpha Iib beta3 ---> Rac1	54	alpha Iib beta3 ---> Rac1	-2079,6905
21	EGF ---> ERK	27	EGF ---> ERK	-1720,3506
106	IL-1 pathway	139	IL-1 pathway	-1504,5523
179	E2F network	131	E2F network	2401,48046
17	ZAP-70 ---> c-Jun	23	ZAP-70 ---> c-Jun	-1368,6132
16	wnt pathway	15	wnt pathway	2471,89724
15	JNK1 ---> MKK4	11	JNK1 ---> MKK4	9877,64275
27	IL-1beta ---> c-Jun	38	IL-1beta ---> c-Jun	-1067,0934
124	TLR3 pathway	81	TLR3 pathway	4306,91353
46	IL-1beta ---> Elk-1	77	IL-1beta ---> Elk-1	-973,87927
19	EGF ---> PI3K-C2beta	24	EGF ---> PI3K-C2beta	-799,14232
20	RANKL ---> JNK1	25	RANKL ---> JNK1	-799,14232
42	RhoA ---> stress fiber forr	78	RhoA ---> stress fiber forr	-545,35785
43	RhoA pathway	79	RhoA pathway	-545,35785
26	Epo ---> IP3, PtsIns(3,4)P	35	Epo ---> IP3, PtsIns(3,4)P	-792,54536
78	IL-8 pathway	17	IL-8 pathway	13360,3529
192	p53 pathway	193	p53 pathway	223,289628
13	c-Cbl ---/ ErBB1	18	c-Cbl ---/ ErBB1	-675,6487
98	neurotensin pathway	10	neurotensin pathway	30093,0707
47	fMLP pathway	33	fMLP pathway	1217,5052
198	TLR4 pathway	34	TLR4 pathway	25663,6445
24	FasL ---> Caspase-3	31	FasL ---> Caspase-3	-584,32283
25	EGF ---> c-Fos	32	EGF ---> c-Fos	-584,32283
38	parkin associated pathway	76	parkin associated pathway	-529,18745
127	EDAR pathway	152	EDAR pathway	-507,58105

158 IL-1beta ---> p50:RelA	190 IL-1beta ---> p50:RelA	-451,03372
28 EDA-A2 ---> c-Jun	36 EDA-A2 ---> c-Jun	-441,63407
96 LPS ---> p38	13 LPS ---> p38	49593,0419
123 Rac1 pathway	141 Rac1 pathway	-394,79993
154 IFN pathway	140 IFN pathway	542,685263
101 BCR ---> c-Jun	119 BCR ---> c-Jun	-375,66594
30 JIP-1 ---> APP	40 JIP-1 ---> APP	-228,08622
69 LAT ---> cofilin	86 LAT ---> cofilin	-232,34783
117 BCR ---> p38	136 BCR ---> p38	-216,48606
197 LPS ---> NF-kappaB	49 LPS ---> NF-kappaB	6521,49613
81 Aurora-A cell cycle regula	55 Aurora-A cell cycle regul	310,08958
82 PPAR pathway	56 PPAR pathway	310,08958
83 Aurora-A activation, subst	57 Aurora-A activation, subs	310,08958
97 IFNgamma ---> STAT1alp	22 IFNgamma ---> STAT1alp	4573,35817
119 HIF-1alpha pathway	203 HIF-1alpha pathway	-307,84543
44 Apo2L ---Caspase-8---> C	51 Apo2L ---Caspase-8---> C	-173,867
45 PRL ---IRS---> PI3K	52 PRL ---IRS---> PI3K	-173,867
181 G2/M phase (cyclin B:Cdk	202 G2/M phase (cyclin B:Cdk	-152,14844
234 tuberin pathway	258 tuberin pathway	-128,30211
150 BCR ---MLK3---> c-Jun	162 BCR ---MLK3---> c-Jun	-157,77353
151 BCR ---> cytoskeletal reor	163 BCR ---> cytoskeletal reo	-157,77353
152 insulin ---> glucose uptake	164 insulin ---> glucose uptake	-157,77353
182 G1 phase (Cdk2)	161 G1 phase (Cdk2)	212,746885
65 G-alpha-q ---> arachidonic	111 G-alpha-q ---> arachidoni	-172,72851
246 VEGF-A pathway	242 VEGF-A pathway	135,837489
22 EGF ---> STAT1alpha	28 EGF ---> STAT1alpha	-151,83382
23 ASK1 ---> p38alpha	29 ASK1 ---> p38alpha	-151,83382
103 PRL ---PI3K---> AKT	118 PRL ---PI3K---> AKT	-153,76509
153 Htt pathway	186 Htt pathway	-138,93549
205 TNF-alpha pathway	96 TNF-alpha pathway	2496,06235
66 TNF-alpha ---> c-Jun	82 TNF-alpha ---> c-Jun	-136,67972
67 Caspase-9 ---> Caspases	83 Caspase-9 ---> Caspases	-136,67972
68 PRL ---> PAK1	84 PRL ---> PAK1	-136,67972
178 IFNalpha, IFNbeta, IFNg	135 IFNalpha, IFNbeta, IFNg	410,305023
233 insulin ---> AKT-1 pathw	241 insulin ---> AKT-1 pathw	-6,5134158
105 cyclosome regulatory netw	85 cyclosome regulatory netv	207,224718
235 S phase (Cdk2)	209 S phase (Cdk2)	132,435374
130 RANKL ---> AKT	151 RANKL ---> AKT	-112,36111
131 dsRNA ---> IKK-alpha:IK	39 dsRNA ---> IKK-alpha:IK	2266,28994
79 LAT ---> PKCtheta	37 LAT ---> PKCtheta	879,471684
118 p73 pathway	95 p73 pathway	169,196078
31 EGF ---> SHIP1	41 EGF ---> SHIP1	-105,81122

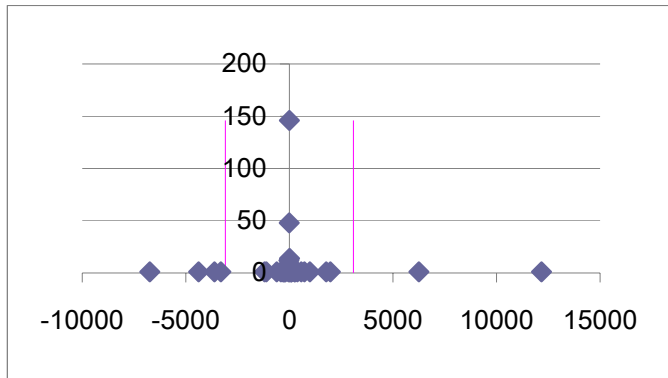
32 Cis ---/ PRLR	42 Cis ---/ PRLR	-105,81122
33 EGF ---> STAT3	43 EGF ---> STAT3	-105,81122
34 SOCS-1 ---/ PRL	44 SOCS-1 ---/ PRL	-105,81122
35 Htt ---/ Caspase-8	45 Htt ---/ Caspase-8	-105,81122
36 SOCS-3 ---/ EpoR	46 SOCS-3 ---/ EpoR	-105,81122
37 SOCS-3 ---/ PRLR	47 SOCS-3 ---/ PRLR	-105,81122
204 MHC class II ---> NF-AT	234 MHC class II ---> NF-AT	-80,755644
159 LAT ---> p50:RelA	188 LAT ---> p50:RelA	-85,963195
160 LPS ---> JNK	14 LPS ---> JNK	39096,9528
102 PRL ---> Raf-1	117 PRL ---> Raf-1	-95,996422
126 fMLP ---> superoxide	112 fMLP ---> superoxide	138,010397
48 Smac ---/ cIAP-2	58 Smac ---/ cIAP-2	-78,178277
49 SHP-2 ---> PRL	59 SHP-2 ---> PRL	-78,178277
50 Smac ---/ cIAP-1	60 Smac ---/ cIAP-1	-78,178277
51 DLK ---> c-Jun	61 DLK ---> c-Jun	-78,178277
52 beta-arrestin2 ---> c-Jun	62 beta-arrestin2 ---> c-Jun	-78,178277
53 ASK1 ---DUSP19---> c-Jun	64 ASK1 ---DUSP19---> c-Jun	-78,178277
54 PRL ---Gab-2---> PI3K	65 PRL ---Gab-2---> PI3K	-78,178277
55 PDGF B ---> PAK-1	66 PDGF B ---> PAK-1	-78,178277
121 IFNalpha, IFNbeta ---> PI	208 IFNalpha, IFNbeta ---> PI	-297,68993
122 dsRNA ---> c-Jun	30 dsRNA ---> c-Jun	2470,77455
132 cyclosome regulation	116 cyclosome regulation	112,444851
133 LAT ---> Ras	153 LAT ---> Ras	-64,924593
134 LAT ---> MLC	154 LAT ---> MLC	-64,924593
135 MHC class I ---> LAT	155 MHC class I ---> LAT	-64,924593
70 MKK3 ---> HNF-1alpha	87 MKK3 ---> HNF-1alpha	-60,409243
71 Epo ---> SHP-1	88 Epo ---> SHP-1	-60,409243
72 GH pathway	89 GH pathway	-60,409243
73 PDGF A ---> Crk	90 PDGF A ---> Crk	-60,409243
74 Apo2L ---> Caspase-10	91 Apo2L ---> Caspase-10	-60,409243
75 GH ---> Grb-2	92 GH ---> Grb-2	-60,409243
76 Nod1 ---> Caspase-9	93 Nod1 ---> Caspase-9	-60,409243
245 BCR ---> NF-AT	210 BCR ---> NF-AT	56,1698754
99 insulin ---Jak1---> IRS-1, Shc	113 insulin ---Jak1---> IRS-1, Shc	-48,292914
100 Src ---> Rap2B	114 Src ---> Rap2B	-48,292914
201 Plk1 activation and substrates	256 Plk1 activation and substrates	35,3661315
202 insulin ---Shc---> MAPK cascade	191 insulin ---Shc---> MAPK cascade	56,1393576
203 Plk1 cell cycle regulation	257 Plk1 cell cycle regulation	35,3661315
200 PRL ---Src,FAK1---> ERK1/2	223 PRL ---Src,FAK1---> ERK1/2	-34,213946
120 Epo ---> PIP3	133 Epo ---> PIP3	-39,645579
232 OSM pathway	201 OSM pathway	43,5105476
129 VEGF-A ---> PLA2	189 VEGF-A ---> PLA2	-27,478189
136 IFNalpha, IFNbeta ---> STAT1	228 IFNalpha, IFNbeta ---> STAT1	-161,65268
137 Apaf-1 ---> Caspase-7	156 Apaf-1 ---> Caspase-7	-35,668449
138 Apaf-1 ---> Caspase-3	157 Apaf-1 ---> Caspase-3	-35,668449
139 CD19 ---> PLCgamma2	158 CD19 ---> PLCgamma2	-35,668449
191 OSM ---> ERK	181 OSM ---> ERK	39,4027149
155 activin A ---> Smad2	178 activin A ---> Smad2	-28,557798

156 activin A ---> Smad3	179 activin A ---> Smad3	-28,557798
157 PRL ---Fyn---> PI3K	180 PRL ---Fyn---> PI3K	-28,557798
56 ErbB1 ---> endophilin 1	67 ErbB1 ---> endophilin 1	-28,999313
57 TAO1 ---> p38alpha	68 TAO1 ---> p38alpha	-28,999313
58 MLK2 ---> JNK1	69 MLK2 ---> JNK1	-28,999313
59 TAO2 ---MKK6---> p38a	70 TAO2 ---MKK6---> p38a	-28,999313
60 E1 ---/ ErbB3	71 E1 ---/ ErbB3	-28,999313
61 MLK2 ---MKK3---> p38a	72 MLK2 ---MKK3---> p38a	-28,999313
62 MLK2 ---MKK6---> p38a	73 MLK2 ---MKK6---> p38a	-28,999313
63 TAK1 ---> p38alpha	74 TAK1 ---> p38alpha	-28,999313
64 TAO2 ---MKK3---> p38a	75 TAO2 ---MKK3---> p38a	-28,999313
252 dsRNA ---> p50:RelA	207 dsRNA ---> p50:RelA	208,909388
84 MEKK3 ---> ATF-2	97 MEKK3 ---> ATF-2	-23,30854
85 MEKK2 ---MKK7---> JNK1	98 MEKK2 ---MKK7---> JNK1	-23,30854
86 MEKK2 ---> ATF-2	99 MEKK2 ---> ATF-2	-23,30854
87 GCK ---> MKK4	100 GCK ---> MKK4	-23,30854
88 PDGF A ---> SHP-2	101 PDGF A ---> SHP-2	-23,30854
89 MKK4 ---> c-Jun	102 MKK4 ---> c-Jun	-23,30854
90 PDGF B ---> PKR	103 PDGF B ---> PKR	-23,30854
91 TAK1 ---> c-Jun	104 TAK1 ---> c-Jun	-23,30854
92 p38alpha ---> STAT3	105 p38alpha ---> STAT3	-23,30854
93 JNK2 ---> doublecortin	106 JNK2 ---> doublecortin	-23,30854
94 Epo ---Lyn---> STAT5A	107 Epo ---Lyn---> STAT5A	-23,30854
95 MEKK2 ---> ATF-2	109 MEKK2 ---> ATF-2	-23,30854
230 IFNalpha, IFNbeta ---> STAT1	261 IFNalpha, IFNbeta ---> STAT1	-71,995231
231 insulin ---IRS---> PRK2, SHC	240 insulin ---IRS---> PRK2, SHC	-17,286528
247 mTOR ----> S6, eIF-4E	260 mTOR ----> S6, eIF-4E	-13,968232
257 ZAP-70 ---> Elk-1	276 ZAP-70 ---> Elk-1	-20,275344
258 PDGF A ---> ERK	277 PDGF A ---> ERK	-20,275344
259 AKT, MAPKAPK2 ---/ tyrosine	278 AKT, MAPKAPK2 ---/ tyrosine	-20,275344
260 PDGF B ---> ERK	279 PDGF B ---> ERK	-20,275344
268 BCR ---> ERK	259 BCR ---> ERK	15,8630351
269 TNF-alpha ---> NFkappaB	187 TNF-alpha ---> NFkappaB	298,872839
107 MKP-5 ---/ p53; MKK4 --	121 MKP-5 ---/ p53; MKK4 --	-17,273991
108 VEGF-A ---> Ras	122 VEGF-A ---> Ras	-17,273991
109 PKCdelta ---> GRK2	216 PKCdelta ---> GRK2	-104,87494
110 PRL ---> Jak2	123 PRL ---> Jak2	-17,273991
111 PDGF B ---> Src	124 PDGF B ---> Src	-17,273991
112 PDGF A ---> Src	125 PDGF A ---> Src	-17,273991
113 SHP-1 ---/ ErbB1	126 SHP-1 ---/ ErbB1	-17,273991
114 CD148 ---/ PDGFRbeta	127 CD148 ---/ PDGFRbeta	-17,273991
115 PRL ---Jak2---> STAT5A	128 PRL ---Jak2---> STAT5A	-17,273991
116 Unc18-1 ---/ PLD2	129 Unc18-1 ---/ PLD2	-17,273991
140 MLK2 ---> NeuroD	142 MLK2 ---> NeuroD	-14,184889

141 PRL ---Src--> STAT5B	143 PRL ---Src--> STAT5B	-14,184889
142 Smac ---> Caspase-3	144 Smac ---> Caspase-3	-14,184889
143 PTEN ---/ AKT-1	145 PTEN ---/ AKT-1	-14,184889
144 Smurf-1 ---/ Smad7, TGF β	146 Smurf-1 ---/ Smad7, TGF β	-14,184889
145 Epo ---> STAT5	147 Epo ---> STAT5	-14,184889
146 Htt ---> Ca	148 Htt ---> Ca	-14,184889
147 EDAR ---> TRAF2	149 EDAR ---> TRAF2	-14,184889
148 ASK1 ---MKK4--> JNK1	63 ASK1 ---MKK4--> JNK1	264,345621
149 Fas ---/ Cdc42	150 Fas ---/ Cdc42	-14,184889
251 beta-catenin network	238 beta-catenin network	12,8523221
161 PDGF B ---> STATs	182 PDGF B ---> STATs	-11,957761
162 JNK1 ---> Bax	183 JNK1 ---> Bax	-11,957761
163 Htt ---> NeuroD	184 Htt ---> NeuroD	-11,957761
164 JLP ---> JNK1	94 JLP ---> JNK1	206,288333
262 VEGF-A ---/ Caspase-9, B	253 VEGF-A ---/ Caspase-9, B	10,121627
263 IL-12 - STAT4 pathway	254 IL-12 - STAT4 pathway	10,121627
264 IL-12 ---> STAT4	255 IL-12 ---> STAT4	10,121627
193 PDGF B ---SHP-2--> Ras	132 PDGF B ---SHP-2--> Ras	140,356528
194 BMP7 ---> Smad1, Smad5	271 BMP7 ---> Smad1, Smad5	-57,823399
195 SLP-65 ---/ Raf-1	211 SLP-65 ---/ Raf-1	-9,0888174
196 PDGF B---/ Ras	134 PDGF B---/ Ras	140,356528
199 EDA-A2 ---TRAF3--> N	192 EDA-A2 ---TRAF3--> N	12,574875
216 IL-22 ---> STAT1alpha, S	224 IL-22 ---> STAT1alpha, S	-8,0398734
217 Fer ---> beta-catenin{Ty	225 Fer ---> beta-catenin{Ty	-8,0398734
218 PDGF A ---> AKT-1	226 PDGF A ---> AKT-1	-8,0398734
219 IL-22 pathway	227 IL-22 pathway	-8,0398734
220 IL-10 pathway	229 IL-10 pathway	-8,0398734
221 PDK1 ---> 4E-BP1, p70S6	230 PDK1 ---> 4E-BP1, p70S6	-8,0398734
222 PDGF B ---> AKT-1	231 PDGF B ---> AKT-1	-8,0398734
223 EGF ---> PLD2	232 EGF ---> PLD2	-8,0398734
224 IL-10 ---> STAT1alpha, S	233 IL-10 ---> STAT1alpha, S	-8,0398734
225 CHIP ---/ Pael-R	159 CHIP ---/ Pael-R	117,944358
226 Src ---/ RhoA	160 Src ---/ RhoA	117,944358
241 TGFbeta ---> Smad2, Sma	249 TGFbeta ---> Smad2, Sma	-7,1615409
242 EGF ---> DAG, IP3	250 EGF ---> DAG, IP3	-7,1615409
243 Src ---> Rac1	251 Src ---> Rac1	-7,1615409
244 Rac1 ---> c-Jun, Elk-1	252 Rac1 ---> c-Jun, Elk-1	-7,1615409
270 VEGF-A ---> NO	239 VEGF-A ---> NO	62,6233023
248 Csk, CD45 ---> Lck	262 Csk, CD45 ---> Lck	-7,2872183
261 Csk, CD45 ---> Fyn	280 Csk, CD45 ---> Fyn	-11,064501
227 PDGF A ---> DAG, IP3	204 PDGF A ---> DAG, IP3	9,64088429
228 PDGF B --> DAG, IP3	205 PDGF B --> DAG, IP3	9,64088429
229 PI3K ---/ p53	206 PI3K ---/ p53	9,64088429
273 G2/M phase (cyclin A:Cd	270 G2/M phase (cyclin A:Cd	6,13657121

249 IL-4 - STAT6 pathway	236 IL-4 - STAT6 pathway	5,52841541
250 IL-4 ---> STAT6	237 IL-4 ---> STAT6	5,52841541
128 MKK6 ---> Hsp27	138 MKK6 ---> Hsp27	-4,1655423
165 MEK-1 ---> HIF-1alpha	165 MEK-1 ---> HIF-1alpha	-3,491721
166 MKK6 ---/ MRF4	166 MKK6 ---/ MRF4	-3,491721
167 p38alpha ---> CREB	167 p38alpha ---> CREB	-3,491721
168 E1 ---/ alpha-tubulin	168 E1 ---/ alpha-tubulin	-3,491721
169 MKK6 ---> p53	169 MKK6 ---> p53	-3,491721
170 MKK4 ---/ RXR-alpha	170 MKK4 ---/ RXR-alpha	-3,491721
171 MKK4 ---p38alpha---> A1	171 MKK4 ---p38alpha---> A'	-3,491721
172 E1 ---/ synaptotagmin-11	172 E1 ---/ synaptotagmin-11	-3,491721
173 E1 ---/ beta-tubulin	173 E1 ---/ beta-tubulin	-3,491721
174 E1 ---/ Septin5	174 E1 ---/ Septin5	-3,491721
175 E1 ---dorfin---/ synphilin-	175 E1 ---dorfin---/ synphilin-	-3,491721
176 MEKK4 ---> JNK1	176 MEKK4 ---> JNK1	-3,491721
177 E1 ---parkin---/ synphilin-	177 E1 ---parkin---/ synphilin-	-3,491721
271 IL-8 ---> ERK2	266 IL-8 ---> ERK2	3,03070947
272 Eps15 ---> ErbB internaliz	267 Eps15 ---> ErbB internaliz	3,03070947
183 inhibitory phosphorylation	194 inhibitory phosphorylation	-3,0116178
184 MKK7 ---> c-Jun	195 MKK7 ---> c-Jun	-3,0116178
185 EDA-A2 ---> TRAF6	196 EDA-A2 ---> TRAF6	-3,0116178
186 Fas ---> Caspase-8	197 Fas ---> Caspase-8	-3,0116178
187 PP2Calpha ---/ MKK4	198 PP2Calpha ---/ MKK4	-3,0116178
188 PP2Calpha ---/ MKK6	199 PP2Calpha ---/ MKK6	-3,0116178
189 Caspase-6 ---> Caspase-3	108 Caspase-6 ---> Caspase-3	105,357064
190 MEKK4 --MKK6---> AT1	200 MEKK4 --MKK6---> AT	-3,0116178
206 Rac1 ---/ cofilin	213 Rac1 ---/ cofilin	-2,6491513
207 Fas ---> Abl	214 Fas ---> Abl	-2,6491513
208 E1 ---/ alpha-synuclein	215 E1 ---/ alpha-synuclein	-2,6491513
209 VEGF-A ---> STAT1alph:	217 VEGF-A ---> STAT1alph	-2,6491513
210 EGF ---> N-WASP	218 EGF ---> N-WASP	-2,6491513
211 LMW-PTP ---/ VEGFR-1	219 LMW-PTP ---/ VEGFR-1	-2,6491513
212 Fas ---/ SRF	220 Fas ---/ SRF	-2,6491513
213 Fas ---/ NuMA	221 Fas ---/ NuMA	-2,6491513
215 Rac1 ---> p38	222 Rac1 ---> p38	-2,6491513
236 Fas ---/ PRK2	243 Fas ---/ PRK2	-2,7004841
237 E1 ---/ cyclin E	244 E1 ---/ cyclin E	-2,7004841
238 Rac1 ---> golgin-160	245 Rac1 ---> golgin-160	-2,7004841
239 MKK4 ---/ PPAR-gamma	246 MKK4 ---/ PPAR-gamma	-2,7004841
240 PDGF B ---> cortactin	247 PDGF B ---> cortactin	-2,7004841
265 Rac1 ---MLK3---> c-Jun	281 Rac1 ---MLK3---> c-Jun	-5,056243
266 HB-EGF ---> PI3K	282 HB-EGF ---> PI3K	-5,056243
267 c-Jun degradation	283 c-Jun degradation	-5,056243
253 POSH ---> JNK1, JNK2	263 POSH ---> JNK1, JNK2	-2,1714319
254 Fas ---> Caspase-2	185 Fas ---> Caspase-2	62,2549625

255 Ubc9 ---/ p73alpha	264 Ubc9 ---/ p73alpha	-2,1714319
274 IL-2 ---> STAT5	272 IL-2 ---> STAT5	2,19204114
275 IL-2 - STAT5 pathway	273 IL-2 - STAT5 pathway	2,19204114
276 OSM ---> STAT1	274 OSM ---> STAT1	2,19204114
277 c-Kit pathway	275 c-Kit pathway	2,19204114



High vs low 4 table 14

Control Rank	Pathway name	Sample Rank	Pathway name	Delta Score
	1 stress-associated pathways		1 stress-associated pathways	107840053
	4 JNK pathway		2 JNK pathway	1424671,53
	7 EGF pathway		4 EGF pathway	1192348,13
	3 Epo pathway		8 Epo pathway	-78091,12
	8 PRL pathway		13 PRL pathway	-48899,285
	6 RANKL pathway		5 RANKL pathway	95745,0691
	2 IFNgamma ---> STAT1alp		42 IFNgamma ---> STAT1alp	-93648,662
26	TLR3 pathway	132	TLR3 pathway	-22157,332
18	IFN pathway	177	IFN pathway	-23691,796
60	insulin pathway	106	insulin pathway	-12606,832
13	IFNalpha, IFNbeta, IFNga	182	IFNalpha, IFNbeta, IFNga	-18424,553
94	T-cell antigen receptor pat	99	T-cell antigen receptor pat	2932,64189
42	PDGF pathway	50	PDGF pathway	-3177,4749
	68 Fas pathway		6 Fas pathway	452768,761
11	Epo ---> ERK1	16	Epo ---> ERK1	-1584,8359
	9 BMP2 ---> p38alpha		7 BMP2 ---> p38alpha	24021,6487
87	TLR4 pathway	216	TLR4 pathway	-7120,6804
100	E2F network	155	E2F network	-2434,2321
	5 EGF ---> PAK1		9 EGF ---> PAK1	-981,45594
111	B-cell antigen receptor pat	102	B-cell antigen receptor pat	2293,37592
40	alpha Iib beta3 pathway	45	alpha Iib beta3 pathway	-1090,3469
	41 alpha Iib beta3 ---> Rac1		46 alpha Iib beta3 ---> Rac1	-1090,3469
19	EGF ---> ERK	23	EGF ---> ERK	-891,04332
99	IL-1 pathway	122	IL-1 pathway	-805,5383
208	Caspase network	28	Caspase network	76736,688
15	ZAP-70 ---> c-Jun	19	ZAP-70 ---> c-Jun	-691,34781
43	IL-8 pathway	17	IL-8 pathway	7698,85951
74	p38 pathway	3	p38 pathway	397829,934
12	TAK1 ---> ATF-2	11	TAK1 ---> ATF-2	12984,4226
14	wnt pathway	15	wnt pathway	1358,07488
47	neurotensin pathway	18	neurotensin pathway	6493,4114
28	IL-1beta ---> c-Jun	33	IL-1beta ---> c-Jun	-581,58895
20	RANKL ---> MITF	12	RANKL ---> MITF	7479,01448
	21 dsRNA ---> c-Jun		129 dsRNA ---> c-Jun	-3549,498
178	p53 pathway	205	p53 pathway	-1165,0357
16	EGF ---> PI3K-C2beta	20	EGF ---> PI3K-C2beta	-387,23403
17	RANKL ---> JNK1	21	RANKL ---> JNK1	-387,23403
27	Epo ---> IP3, PtsIns(3,4)P	29	Epo ---> IP3, PtsIns(3,4)P	-391,27774
10	c-Cbl ---/ ErBB1	14	c-Cbl ---/ ErBB1	-315,13274
48	RhoA ---> stress fiber forr	85	RhoA ---> stress fiber forr	-733,48178
49	RhoA pathway	86	RhoA pathway	-733,48178
57	fMLP pathway	43	fMLP pathway	688,606723
22	EGF ---> c-Fos	27	EGF ---> c-Fos	-279,40627
142	Apo2L pathway	22	Apo2L pathway	23961,9063
151	IL-1beta ---> p50:RelA	180	IL-1beta ---> p50:RelA	-207,30864
196	TGFbeta pathway	47	TGFbeta pathway	17700,0518

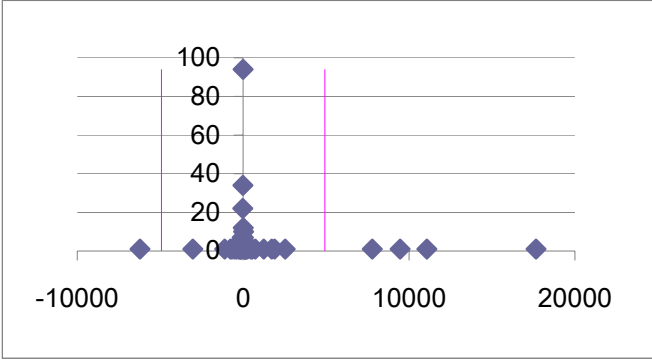
89 BCR ---> c-Jun	107 BCR ---> c-Jun	-185,02177
90 IL-1beta ---> Elk-1	51 IL-1beta ---> Elk-1	1540,21023
124 G2/M phase (cyclin B:Cdk	184 G2/M phase (cyclin B:Cdk	-803,99576
29 Aurora-A cell cycle regula	73 Aurora-A cell cycle regula	-473,56739
30 Aurora-A activation, subst	75 Aurora-A activation, subst	-473,56739
69 dsRNA ---> IKK-alpha:IK	135 dsRNA ---> IKK-alpha:IK	-931,93467
24 GH pathway	79 GH pathway	-1117,7039
25 GH ---> Grb-2	82 GH ---> Grb-2	-1117,7039
88 parkin associated pathway	30 parkin associated pathway	1519,91297
202 VEGF-A pathway	234 VEGF-A pathway	-74,936232
31 JIP-1 ---> APP	34 JIP-1 ---> APP	-101,37025
45 cyclosome regulatory netw	100 cyclosome regulatory netw	-307,94802
101 BCR ---> p38	123 BCR ---> p38	-92,725291
180 LPS ---> NF-kappaB	200 LPS ---> NF-kappaB	-68,682794
167 Rac1 pathway	130 Rac1 pathway	638,52431
120 dsRNA ---> p50:RelA	248 dsRNA ---> p50:RelA	-743,17095
46 PRL ---IRS---> PI3K	49 PRL ---IRS---> PI3K	-75,799787
214 tuberin pathway	244 tuberin pathway	-49,292249
215 insulin ---> AKT-1 pathwa	253 insulin ---> AKT-1 pathwa	-214,95399
143 LPS ---> p38	101 LPS ---> p38	785,435643
144 BCR ---MLK3---> c-Jun	152 BCR ---MLK3---> c-Jun	-68,111785
145 insulin ---> glucose uptake	154 insulin ---> glucose uptake	-68,111785
23 EGF ---> STAT1alpha	24 EGF ---> STAT1alpha	-63,569565
98 PRL ---PI3K---> AKT	109 PRL ---PI3K---> AKT	-66,740741
189 TNF-alpha pathway	127 TNF-alpha pathway	1318,19124
61 IL-22 ---> STAT1alpha, S	219 IL-22 ---> STAT1alpha, S'	-638,84753
62 IL-22 pathway	222 IL-22 pathway	-638,84753
63 TNF-alpha ---> c-Jun	70 TNF-alpha ---> c-Jun	-58,348706
64 IL-10 pathway	224 IL-10 pathway	-638,84753
65 IL-10 ---> STAT1alpha, S	228 IL-10 ---> STAT1alpha, S'	-638,84753
66 PRL ---> PAK1	72 PRL ---> PAK1	-58,348706
206 EDAR pathway	133 EDAR pathway	1184,99266
67 cyclosome regulation	128 cyclosome regulation	-156,3986
125 RANKL ---> AKT	134 RANKL ---> AKT	-46,648781
229 G1 phase (Cdk2)	181 G1 phase (Cdk2)	294,122734
72 EDA-A2 ---> c-Jun	31 EDA-A2 ---> c-Jun	1115,26891
73 LAT ---> PKCtheta	32 LAT ---> PKCtheta	1115,26891
243 S phase (Cdk2)	218 S phase (Cdk2)	118,265946
32 EGF ---> SHIP1	35 EGF ---> SHIP1	-43,190068
33 Cis ---/ PRLR	36 Cis ---/ PRLR	-43,190068
34 VEGF-A ---> Ras	113 VEGF-A ---> Ras	-467,00982
35 EGF ---> STAT3	37 EGF ---> STAT3	-43,190068

36 PKCdelta ---> GRK2	114 PKCdelta ---> GRK2	-467,00982
37 SOCS-1 ---/ PRL	38 SOCS-1 ---/ PRL	-43,190068
38 SOCS-3 ---/ EpoR	40 SOCS-3 ---/ EpoR	-43,190068
39 SOCS-3 ---/ PRLR	41 SOCS-3 ---/ PRLR	-43,190068
149 PPAR pathway	74 PPAR pathway	483,62885
152 LAT ---> p50:RelA	178 LAT ---> p50:RelA	-34,083034
153 LPS ---> JNK	179 LPS ---> JNK	-34,083034
95 PRL ---> Raf-1	108 PRL ---> Raf-1	-42,042471
96 IL-4 - STAT6 pathway	245 IL-4 - STAT6 pathway	-467,17975
97 IL-4 ---> STAT6	246 IL-4 ---> STAT6	-467,17975
122 G-alpha-q ---> arachidonic	110 G-alpha-q ---> arachidonic	88,9832095
123 fMLP ---> superoxide	111 fMLP ---> superoxide	88,9832095
218 HIF-1alpha pathway	173 HIF-1alpha pathway	229,45259
50 SHP-2 ---> PRL	53 SHP-2 ---> PRL	-31,202867
51 DLK ---> c-Jun	55 DLK ---> c-Jun	-31,202867
52 beta-arrestin2 ---> c-Jun	56 beta-arrestin2 ---> c-Jun	-31,202867
53 ASK1 ---MKK4---> JNK1	57 ASK1 ---MKK4---> JNK1	-31,202867
54 ASK1 ---DUSP19---> c-Jun	58 ASK1 ---DUSP19---> c-Jun	-31,202867
55 PRL ---Gab-2---> PI3K	59 PRL ---Gab-2---> PI3K	-31,202867
56 PDGF B ---> PAK-1	60 PDGF B ---> PAK-1	-31,202867
118 IFNalpha, IFNbeta ---> PI3K	194 IFNalpha, IFNbeta ---> PI3K	-280,5322
179 BCR ---> cytoskeletal reor	153 BCR ---> cytoskeletal reor	349,197495
207 OSM pathway	199 OSM pathway	-107,59606
70 Epo ---> SHP-1	78 Epo ---> SHP-1	-23,416846
71 PDGF A ---> Crk	80 PDGF A ---> Crk	-23,416846
147 Plk1 activation and substr	251 Plk1 activation and substr	-98,722829
148 Plk1 cell cycle regulation	252 Plk1 cell cycle regulation	-98,722829
242 MHC class II ---> NF-AT	217 MHC class II ---> NF-AT	193,744143
230 BCR ---> NF-AT	230 BCR ---> NF-AT	41,3283903
231 p73 pathway	105 p73 pathway	349,159438
170 mTOR ----> S6, eIF-4E	249 mTOR ----> S6, eIF-4E	-166,36108
91 JNK1 ---> MKK4	10 JNK1 ---> MKK4	17241,9952
92 insulin ---Jak1---> IRS-1, J	103 insulin ---Jak1---> IRS-1, J	-18,115956
93 Src ---> Rap2B	104 Src ---> Rap2B	-18,115956
195 insulin ---Shc---> MAPK c	196 insulin ---Shc---> MAPK c	37,9920143
169 Htt pathway	156 Htt pathway	441,663379
188 PRL ---Src,FAK1---> ERK	204 PRL ---Src,FAK1---> ERK	-10,870115
112 PDGF B ---SHP-2---> Ras	124 PDGF B ---SHP-2---> Ras	-14,3277
113 Epo ---> PIP3	125 Epo ---> PIP3	-14,3277
114 IL-2 ---> STAT5	274 IL-2 ---> STAT5	-234,88683
115 IL-2 - STAT5 pathway	275 IL-2 - STAT5 pathway	-234,88683
116 PDGF B---/ Ras	126 PDGF B---/ Ras	-14,3277
117 OSM ---> STAT1	276 OSM ---> STAT1	-234,88683
234 OSM ---> ERK	183 OSM ---> ERK	-5,7769983
126 IFNalpha, IFNbeta ---> ST	223 IFNalpha, IFNbeta ---> ST	-153,31255
127 Apaf-1 ---> Caspase-7	148 Apaf-1 ---> Caspase-7	-13,834076
128 PDK1 ---> 4E-BP1, p70S6	225 PDK1 ---> 4E-BP1, p70S6	-153,31255
129 Apaf-1 ---> Caspase-3	149 Apaf-1 ---> Caspase-3	-13,834076

130 Caspase-9 ---> Caspases	71 Caspase-9 ---> Caspases	427,186276
131 CD19 ---> PLCgamma2	150 CD19 ---> PLCgamma2	-13,834076
132 Src ---/ RhoA	151 Src ---/ RhoA	-13,834076
150 PRL ---Fyn---> PI3K	159 PRL ---Fyn---> PI3K	-9,5485761
58 ErbB1 ---> endophilin 1	61 ErbB1 ---> endophilin 1	-10,013025
59 MLK2 ---> JNK1	63 MLK2 ---> JNK1	-10,013025
183 LAT ---> Ras	136 LAT ---> Ras	210,157009
184 LAT ---> MLC	137 LAT ---> MLC	210,157009
185 G2/M phase (cyclin A:Cdk	273 G2/M phase (cyclin A:Cdk	-94,032168
186 LAT ---> cofilin	76 LAT ---> cofilin	800,441302
187 MHC class I ---> LAT	138 MHC class I ---> LAT	210,157009
203 IFNalpha, IFNbeta ---> ST	266 IFNalpha, IFNbeta ---> ST	-74,648285
204 VEGF-A ---> NO	231 VEGF-A ---> NO	-6,1271604
205 insulin ---IRS---> PRK2, S	232 insulin ---IRS---> PRK2, S	-6,1271604
75 MEKK2 ---MKK7---> JNK	88 MEKK2 ---MKK7---> JNK	-7,143528
77 MEKK2 ---> ATF-2	89 MEKK2 ---> ATF-2	-7,143528
78 GCK ---> MKK4	90 GCK ---> MKK4	-7,143528
79 PDGF A ---> SHP-2	91 PDGF A ---> SHP-2	-7,143528
80 MKK4 ---> c-Jun	92 MKK4 ---> c-Jun	-7,143528
81 PDGF B ---> PKR	93 PDGF B ---> PKR	-7,143528
82 TAK1 ---> c-Jun	94 TAK1 ---> c-Jun	-7,143528
83 Epo ---Lyn---> STAT5A	97 Epo ---Lyn---> STAT5A	-7,143528
84 Caspase-6 ---> Caspase-3	191 Caspase-6 ---> Caspase-3	-127,11285
85 MEKK2 ---> ATF-2	98 MEKK2 ---> ATF-2	-7,143528
86 ASK1 ---> p38alpha	25 ASK1 ---> p38alpha	592,429418
247 VEGF-A ---> PLA2	193 VEGF-A ---> PLA2	47,5199502
219 VEGF-A ---/ Caspase-9, B	254 VEGF-A ---/ Caspase-9, B	-53,476217
220 IL-12 - STAT4 pathway	255 IL-12 - STAT4 pathway	-53,476217
221 IL-12 ---> STAT4	256 IL-12 ---> STAT4	-53,476217
235 beta-catenin network	247 beta-catenin network	-33,378572
240 PDGF A ---> ERK	261 PDGF A ---> ERK	-2,2362971
241 PDGF B ---> ERK	263 PDGF B ---> ERK	-2,2362971
252 BCR ---> ERK	264 BCR ---> ERK	13,7382247
253 TNF-alpha ---> NFkappaE	233 TNF-alpha ---> NFkappaB	111,306448
102 MKP-5 ---/ p53; MKK4 --	112 MKP-5 ---/ p53; MKK4 --	-5,4243394
103 VEGF-A ---> STAT1alpha	209 VEGF-A ---> STAT1alpha	-100,87536
104 PRL ---> Jak2	115 PRL ---> Jak2	-5,4243394
105 PDGF B ---> Src	116 PDGF B ---> Src	-5,4243394
106 LMW-PTP ---/ VEGFR-1	211 LMW-PTP ---/ VEGFR-1	-100,87536
107 PDGF A ---> Src	117 PDGF A ---> Src	-5,4243394
108 SHP-1 ---/ ErbB1	118 SHP-1 ---/ ErbB1	-5,4243394
109 CD148 ---/ PDGFRbeta	119 CD148 ---/ PDGFRbeta	-5,4243394
110 PRL ---Jak2---> STAT5A	120 PRL ---Jak2---> STAT5A	-5,4243394
232 ZAP-70 ---> Elk-1	260 ZAP-70 ---> Elk-1	23,0740837

233 AKT, MAPKAPK2 ---/ tul	262 AKT, MAPKAPK2 ---/ tul	23,0740837
133 Smac ---/ cIAP-2	52 Smac ---/ cIAP-2	308,225719
134 PRL ---Src--> STAT5B	140 PRL ---Src--> STAT5B	-4,1807165
135 Smac ---> Caspase-3	141 Smac ---> Caspase-3	-4,1807165
136 PTEN ---/ AKT-1	142 PTEN ---/ AKT-1	-4,1807165
138 Epo ---> STAT5	144 Epo ---> STAT5	-4,1807165
139 Smac ---/ cIAP-1	54 Smac ---/ cIAP-1	308,225719
140 EDAR ---> TRAF2	146 EDAR ---> TRAF2	-4,1807165
163 PDGF B ---> STATs	174 PDGF B ---> STATs	-3,2640064
164 JNK1 ---> Bax	175 JNK1 ---> Bax	-3,2640064
165 Nod1 ---> Caspase-9	83 Nod1 ---> Caspase-9	240,66004
166 JLP ---> JNK1	84 JLP ---> JNK1	240,66004
181 SLP-65 ---/ Raf-1	198 SLP-65 ---/ Raf-1	-2,0822685
182 c-Kit pathway	277 c-Kit pathway	-56,971622
197 Fer ---> beta-catenin{ Tyr	220 Fer ---> beta-catenin{ Tyr	-1,610585
198 PDGF A ---> AKT-1	221 PDGF A ---> AKT-1	-1,610585
200 PDGF B ---> AKT-1	226 PDGF B ---> AKT-1	-1,610585
201 CHIP ---/ Pael-R	229 CHIP ---/ Pael-R	-1,610585
226 EGF ---> DAG, IP3	241 EGF ---> DAG, IP3	-1,1965244
227 Src ---> Rac1	242 Src ---> Rac1	-1,1965244
228 Rac1 ---> c-Jun, Elk-1	243 Rac1 ---> c-Jun, Elk-1	-1,1965244
236 Csk, CD45 ---> Lck	250 Csk, CD45 ---> Lck	-0,819511
244 Csk, CD45 ---> Fyn	265 Csk, CD45 ---> Fyn	-0,6059081
209 PDGF A ---> DAG, IP3	201 PDGF A ---> DAG, IP3	7,93705004
212 PDGF B --> DAG, IP3	202 PDGF B --> DAG, IP3	7,93705004
213 PI3K ---/ p53	203 PI3K ---/ p53	7,93705004
44 Trx ---/ ASK1	44 Trx ---/ ASK1	-1,9722661
245 activin A ---> Smad2	157 activin A ---> Smad2	158,943465
246 activin A ---> Smad3	158 activin A ---> Smad3	158,943465
121 MKK6 ---> Hsp27	131 MKK6 ---> Hsp27	-0,8554941
154 MEK-1 ---> HIF-1alpha	160 MEK-1 ---> HIF-1alpha	-1,0156611
155 p38alpha ---> CREB	162 p38alpha ---> CREB	-1,0156611
156 MKK4 ---/ RXR-alpha	165 MKK4 ---/ RXR-alpha	-1,0156611
157 MLK2 ---MKK3--> p38a	66 MLK2 ---MKK3--> p38a	155,462079
159 MLK2 ---MKK6--> p38a	67 MLK2 ---MKK6--> p38a	155,462079
160 TAK1 ---> p38alpha	68 TAK1 ---> p38alpha	155,462079
161 MEKK4 ---> JNK1	171 MEKK4 ---> JNK1	-1,0156611
255 FasL ---> Caspase-3	26 FasL ---> Caspase-3	2156,93754
256 Caspase-3 ---/ p53	267 Caspase-3 ---/ p53	3,07549309
257 IL-8 ---> ERK2	268 IL-8 ---> ERK2	3,07549309
258 EGF ---> PLD2	227 EGF ---> PLD2	47,4366683
260 Eps15 ---> ErbB internaliz	269 Eps15 ---> ErbB internaliz	3,07549309
171 MEKK3 ---> ATF-2	87 MEKK3 ---> ATF-2	119,539797
172 MKK7 ---> c-Jun	186 MKK7 ---> c-Jun	-0,4295201

173 p38alpha ---> STAT3	95 p38alpha ---> STAT3	119,539797
174 JNK2 ---> doublecortin	96 JNK2 ---> doublecortin	119,539797
175 PP2Calpha ---/ MKK4	189 PP2Calpha ---/ MKK4	-0,4295201
176 PP2Calpha ---/ MKK6	190 PP2Calpha ---/ MKK6	-0,4295201
190 EGF ---> N-WASP	210 EGF ---> N-WASP	-0,2663709
191 Fas ---/ SRF	212 Fas ---/ SRF	-0,2663709
192 Fas ---/ NuMA	213 Fas ---/ NuMA	-0,2663709
193 Unc18-1 ---/ PLD2	121 Unc18-1 ---/ PLD2	95,1846532
194 Rac1 ---> p38	215 Rac1 ---> p38	-0,2663709
222 E1 ---/ cyclin E	236 E1 ---/ cyclin E	-0,1172821
223 Rac1 ---> golgin-160	237 Rac1 ---> golgin-160	-0,1172821
224 MKK4 ---/ PPAR-gamma	238 MKK4 ---/ PPAR-gamma	-0,1172821
225 PDGF B ---> cortactin	239 PDGF B ---> cortactin	-0,1172821
248 Rac1 ---MLK3---> c-Jun	270 Rac1 ---MLK3---> c-Jun	0,09568169
249 HB-EGF ---> PI3K	271 HB-EGF ---> PI3K	0,09568169
239 POSH ---> JNK1, JNK2	257 POSH ---> JNK1, JNK2	-0,0281322
262 Apo2L ---Caspase-8---> C	48 Apo2L ---Caspase-8---> C	776,568022
		126115,662



Low vs control 1 table 15

Control Rank	Pathway name	Sample Rank	Pathway name	Delta Score
1	stress-associated pathways	1	stress-associated pathways	-7676094,7
2	Epo pathway	3	Epo pathway	-937979,59
5	JNK pathway	4	JNK pathway	-321067,55
7	EGF pathway	7	EGF pathway	-430160,82
6	PRL pathway	8	PRL pathway	-664745,47
3	RANKL pathway	6	RANKL pathway	-258627,31
33	insulin pathway	60	insulin pathway	-25157,486
9	Epo ---> ERK1	11	Epo ---> ERK1	-13398,042
34	PDGF pathway	42	PDGF pathway	-7207,7371
57	B-cell antigen receptor pathway	111	B-cell antigen receptor pathway	-14179,736
8	BMP2 ---> p38alpha	9	BMP2 ---> p38alpha	-11492,62
88	T-cell antigen receptor pathway	94	T-cell antigen receptor pathway	-3410,1091
12	IFNgamma ---> STAT1alpha	2	IFNgamma ---> STAT1alpha	81524,3241
22	alpha Iib beta3 pathway	40	alpha Iib beta3 pathway	-9787,1438
23	alpha Iib beta3 ---> Rac1	41	alpha Iib beta3 ---> Rac1	-9787,1438
4	EGF ---> PAK1	5	EGF ---> PAK1	-7828,1786
56	Fas pathway	68	Fas pathway	-4664,7848
16	EGF ---> ERK	19	EGF ---> ERK	-7512,1749
55	IL-1 pathway	99	IL-1 pathway	-7683,7192
13	ZAP-70 ---> c-Jun	15	ZAP-70 ---> c-Jun	-5709,7202
42	p38 pathway	74	p38 pathway	-6241,4128
11	TAK1 ---> ATF-2	12	TAK1 ---> ATF-2	-4544,9957
21	IL-1beta ---> c-Jun	28	IL-1beta ---> c-Jun	-4581,3724
17	RANKL ---> MITF	20	RANKL ---> MITF	-4249,7591
14	RANKL ---> JNK1	17	RANKL ---> JNK1	-3210,4538
15	EGF ---> PI3K-C2beta	16	EGF ---> PI3K-C2beta	-3210,4538
65	IFN pathway	18	IFN pathway	19620,4253
19	Epo ---> IP3, PtsIns(3,4)P	27	Epo ---> IP3, PtsIns(3,4)P	-3245,9518
189	Caspase network	208	Caspase network	-448,28074
10	c-Cbl ---/ ErBB1	10	c-Cbl ---/ ErBB1	-2544,6952
135	TLR4 pathway	87	TLR4 pathway	4707,39832
110	TLR3 pathway	26	TLR3 pathway	21621,6116
18	EGF ---> c-Fos	22	EGF ---> c-Fos	-2287,5835
89	Apo2L pathway	142	Apo2L pathway	-2408,4872
170	E2F network	100	E2F network	4309,2346
111	IL-1beta ---> p50:RelA	151	IL-1beta ---> p50:RelA	-1946,5118
54	neurotensin pathway	47	neurotensin pathway	470,803888
63	BCR ---> c-Jun	89	BCR ---> c-Jun	-1475,9317
64	IL-1beta ---> Elk-1	90	IL-1beta ---> Elk-1	-1475,9317
87	G2/M phase (cyclin B:Cdk2)	124	G2/M phase (cyclin B:Cdk2)	-1484,7253
43	RhoA ---> stress fiber formation	48	RhoA ---> stress fiber formation	79,7031455
44	RhoA pathway	49	RhoA pathway	79,7031455
80	IFNalpha, IFNbeta, IFNgamma	13	IFNalpha, IFNbeta, IFNgamma	17032,6069
209	p53 pathway	178	p53 pathway	1383,79166
91	IL-8 pathway	43	IL-8 pathway	2404,12436
53	fMLP pathway	57	fMLP pathway	57,2213329

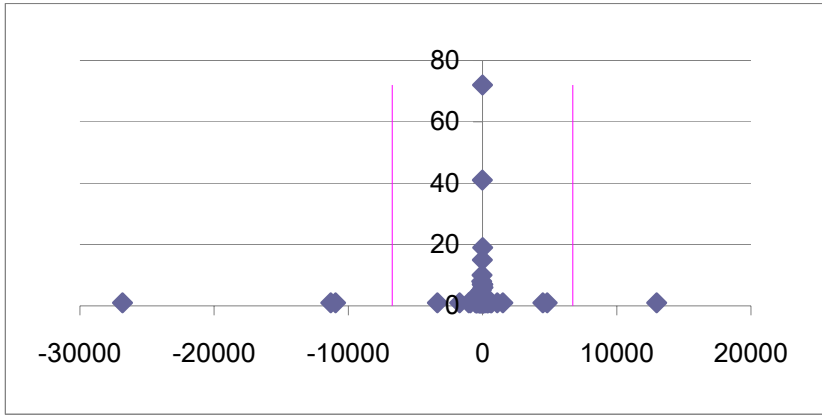
32 wnt pathway	14 wnt pathway	2219,2154
24 JIP-1 ---> APP	31 JIP-1 ---> AI	-861,54428
84 BCR ---> p38	101 BCR ---> p38	-813,22692
145 LPS ---> NF-kappaB	180 LPS ---> NF-	-699,49207
129 Rac1 pathway	167 Rac1 pathwa	-674,02007
35 PRL ---IRS---> PI3K	46 PRL ---IRS--	-638,9838
212 TGFbeta pathway	196 TGFbeta patl	300,640415
107 LPS ---> p38	143 LPS ---> p38	-622,08226
108 insulin ---> glucose uptake	145 insulin ---> g	-622,08226
109 BCR ---MLK3---> c-Jun	144 BCR ---MLK	-622,08226
168 tuberin pathway	214 tuberin pathv	-537,6783
79 PRL ---PI3K---> AKT	98 PRL ---PI3K	-593,95904
20 EGF ---> STAT1alpha	23 EGF ---> ST.	-536,64953
86 parkin associated pathway	88 parkin associ	20,6686123
45 IL-22 ---> STAT1alpha, S	61 IL-22 ---> S1	-500,36958
46 IL-22 pathway	62 IL-22 pathwa	-500,36958
47 TNF-alpha ---> c-Jun	63 TNF-alpha --	-500,36958
48 IL-10 ---> STAT1alpha, S	65 IL-10 ---> S1	-500,36958
49 IL-10 pathway	64 IL-10 pathwa	-500,36958
50 PRL ---> PAK1	66 PRL ---> PA	-500,36958
196 VEGF-A pathway	202 VEGF-A pat	-23,057567
160 EDAR pathway	206 EDAR pathw	-424,02414
104 RANKL ---> AKT	125 RANKL --->	-423,04912
62 EDA-A2 ---> c-Jun	72 EDA-A2 --->	-402,30142
25 EGF ---> SHIP1	32 EGF ---> SH	-372,8499
26 Cis ---/ PRLR	33 Cis ---/ PRLI	-372,8499
27 VEGF-A ---> Ras	34 VEGF-A --->	-372,8499
28 EGF ---> STAT3	35 EGF ---> ST.	-372,8499
29 SOCS-3 ---/ EpoR	38 SOCS-3 ---/.	-372,8499
30 SOCS-1 ---/ PRL	37 SOCS-1 ---/.	-372,8499
31 SOCS-3 ---/ PRLR	39 SOCS-3 ---/.	-372,8499
66 Aurora-A cell cycle regula	29 Aurora-A cel	654,562351
67 Aurora-A activation, subst	30 Aurora-A act	654,562351
68 PPAR pathway	149 PPAR pathw	-339,00735
203 S phase (Cdk2)	243 S phase (Cdk	-287,03886
206 insulin ---> AKT-1 pathwa	215 insulin ---> A	27,7599446
81 PRL ---> Raf-1	95 PRL ---> Raf	-330,7043
127 LPS ---> JNK	153 LPS ---> JNK	-327,32379
128 LAT ---> p50:RelA	152 LAT ---> p50	-327,32379
90 dsRNA ---> c-Jun	21 dsRNA ---> c	3370,22696
36 DLK ---> c-Jun	51 DLK ---> c-J	-280,63942
37 beta-arrestin2 ---> c-Jun	52 beta-arrestin.	-280,63942

38 ASK1 ---DUSP19---> c-Jun	54 ASK1 ---DU -280,63942
39 PRL ---Gab-2---> PI3K	55 PRL ---Gab-2---> PI3K -280,63942
40 PDGF B ---> PAK-1	56 PDGF B ---> PAK-1 -280,63942
41 SHP-2 ---> PRL	50 SHP-2 ---> PRL -280,63942
85 cyclosome regulatory network	45 cyclosome re -431,870017
147 BCR ---> cytoskeletal reor	179 BCR ---> cyto -234,92306
150 HIF-1alpha pathway	218 HIF-1alpha p -108,01139
58 GH pathway	24 GH pathway 923,902417
59 PDGF A ---> Crk	71 PDGF A ---> Crk -211,96757
60 GH ---> Grb-2	25 GH ---> Grb-2 923,902417
61 Epo ---> SHP-1	70 Epo ---> SHP-1 -211,96757
169 OSM pathway	207 OSM pathwa -187,41846
229 G1 phase (Cdk2)	229 G1 phase (Ck 76,3767772
105 G-alpha-q ---> arachidonic	122 G-alpha-q --- -13,776248
106 fMLP ---> superoxide	123 fMLP ---> su -13,776248
82 Src ---> Rap2B	93 Src ---> Rap2 -169,51428
83 insulin ---Jak1---> IRS-1, p	92 insulin ---Jak -169,51428
144 mTOR ----> S6, eIF-4E	170 mTOR ----> S6 -157,18199
112 cyclosome regulation	67 cyclosome re 228,621722
148 dsRNA ---> IKK-alpha:IK	69 dsRNA ---> IK 1135,41289
230 TNF-alpha pathway	189 TNF-alpha p 351,471944
102 Epo ---> PIP3	113 Epo ---> PIP3 -139,44007
103 OSM ---> STAT1	117 OSM ---> STAT1 -139,44007
159 PRL ---Src,FAK1---> ERK	188 PRL ---Src,F -129,65625
113 Caspase-9 ----> Caspases	130 Caspase-9 --- -117,34786
114 Apaf-1 ---> Caspase-7	127 Apaf-1 ---> C -117,34786
115 CD19 ----> PLCgamma2	131 CD19 ---> PLC -117,34786
116 PDK1 ---> 4E-BP1, p70S6	128 PDK1 ---> 4E -117,34786
117 Apaf-1 ---> Caspase-3	129 Apaf-1 ---> C -117,34786
193 dsRNA ----> p50:RelA	120 dsRNA ---> p 626,776833
194 OSM ---> ERK	234 OSM ---> ERK -95,564343
130 PRL ---Fyn---> PI3K	150 PRL ---Fyn--- -103,2628
205 p73 pathway	231 p73 pathway 15,5522883
51 ErbB1 ---> endophilin 1	58 ErbB1 ---> end -98,167357
52 MLK2 ---> JNK1	59 MLK2 ---> JNK -98,167357
173 Plk1 activation and substr	147 Plk1 activatio 96,0216415
174 Plk1 cell cycle regulation	148 Plk1 cell cyc 96,0216415
235 MHC class II ---> NF-AT	242 MHC class II 66,6732071
236 BCR ---> NF-AT	230 BCR ---> NF 53,6013383
149 IFNalpha, IFNbeta ---> PI	118 IFNalpha, IF 206,842176
164 G2/M phase (cyclin A:Cdk	185 G2/M phase -69,325076
165 LAT ---> MLC	184 LAT ---> MLC -69,325076
166 LAT ---> cofilin	186 LAT ---> cofil -69,325076
167 MHC class I ---> LAT	187 MHC class I -69,325076
69 TAK1 ---> c-Jun	82 TAK1 ---> c-Jun -73,982961
70 MEKK2 ---MKK7---> JNK	75 MEKK2 ---MKK -73,982961
71 MEKK2 ---> ATF-2	77 MEKK2 ---> ATF -73,982961
72 Epo ---Lyn---> STAT5A	83 Epo ---Lyn--- -73,982961

73 MEKK2 ---> ATF-2	85 MEKK2 ---> -73,982961
74 GCK ---> MKK4	78 GCK ---> M: -73,982961
75 PDGF A ---> SHP-2	79 PDGF A ---> -73,982961
76 MKK4 ---> c-Jun	80 MKK4 ---> c -73,982961
77 PDGF B ---> PKR	81 PDGF B ---> -73,982961
78 ASK1 ---> p38alpha	86 ASK1 ---> p: -73,982961
219 insulin ---Shc---> MAPK c	195 insulin ---Shc 53,1387324
171 insulin ---IRS---> PRK2, S	205 insulin ---IR: -62,470105
172 VEGF-A ---> NO	204 VEGF-A ---> -62,470105
195 Htt pathway	169 Htt pathway 63,2113627
187 VEGF-A ---/ Caspase-9, B	219 VEGF-A ---/ -58,750655
92 MKP-5 ---/ p53; MKK4 --	102 MKP-5 ---/ p -60,724239
93 PDGF B ---> Src	105 PDGF B ---> -60,724239
94 LMW-PTP ---/ VEGFR-1	106 LMW-PTP -- -60,724239
95 PDGF A ---> Src	107 PDGF A ---> -60,724239
96 SHP-1 ---/ ErbB1	108 SHP-1 ---/ E: -60,724239
97 CD148 ---/ PDGFRbeta	109 CD148 ---/ P -60,724239
98 PRL ---Jak2---> STAT5A	110 PRL ---Jak2- -60,724239
99 PKCdelta ---> GRK2	36 PKCdelta --- 418,401495
100 VEGF-A ---> STAT1alpha	103 VEGF-A ---> -60,724239
101 PRL ---> Jak2	104 PRL ---> Jak -60,724239
207 PDGF A ---> ERK	240 PDGF A ---> -48,266372
208 PDGF B ---> ERK	241 PDGF B ---> -48,266372
215 BCR ---> ERK	252 BCR ---> ER -41,877796
119 EDAR ---> TRAF2	140 EDAR ---> T -48,685582
120 Smac ---/ cIAP-2	133 Smac ---/ cI: -48,685582
121 PRL ---Src---> STAT5B	134 PRL ---Src--- -48,685582
122 ASK1 ---MKK4---> JNK1	53 ASK1 ---MK 303,64129
123 Smac ---> Caspase-3	135 Smac ---> C: -48,685582
124 PTEN ---/ AKT-1	136 PTEN ---/ A: -48,685582
125 Epo ---> STAT5	138 Epo ---> ST: -48,685582
126 Smac ---/ cIAP-1	139 Smac ---/ cI: -48,685582
213 VEGF-A ---> PLA2	247 VEGF-A ---> 7,56272533
131 Nod1 ---> Caspase-9	165 Nod1 ---> C: -41,446066
132 JLP ---> JNK1	166 JLP ---> JNK -41,446066
133 PDGF B ---> STATs	163 PDGF B ---> -41,446066
134 JNK1 ---> Bax	164 JNK1 ---> B: -41,446066
220 TNF-alpha ---> NFkappaE	253 TNF-alpha -- 7,80304799
175 TBK1:TRIF:IKK-i ---> p5	216 TBK1:TRIF: 5,04204197
146 JNK1 ---> MKK4	91 JNK1 ---> M 185,009376
161 PDGF B ---SHP-2---> Ras	112 PDGF B ---S 151,605852
162 SLP-65 ---/ Raf-1	181 SLP-65 ---/ F -33,07013
163 PDGF B---/ Ras	116 PDGF B---/ 1 151,605852
188 VEGF-A ---> NF-ATc	168 VEGF-A ---> 28,6973885

176 Fer ---> beta-cateninp{Ty	197 Fer ---> beta-	-28,869757
177 PDGF A ---> AKT-1	198 PDGF A --->	-28,869757
178 IFNalpha, IFNbeta ---> ST	126 IFNalpha, IF	128,596884
179 OSM ---> STAT3	199 OSM ---> ST	-28,869757
180 PDGF B ---> AKT-1	200 PDGF B --->	-28,869757
181 Src ---/ RhoA	132 Src ---/ RhoA	128,596884
190 Src ---> Rac1	227 Src ---> Rac1	-26,246512
191 Rac1 ---> c-Jun, Elk-1	228 Rac1 ---> c-J	-26,246512
192 LAT ---> PKCtheta	73 LAT ---> PK	519,433446
233 ZAP-70 ---> Elk-1	232 ZAP-70 --->	15,4437971
234 AKT, MAPKAPK2 ---/ tu	233 AKT, MAPK	15,4437971
204 Csk, CD45 ---> Lck	236 Csk, CD45 --	-24,068509
211 Csk, CD45 ---> Fyn	244 Csk, CD45 --	-23,149229
214 LAT ---> Ras	183 LAT ---> Ra	74,8558722
224 IFNalpha, IFNbeta ---> ST	203 IFNalpha, IF	69,0783454
231 IL-12 - STAT4 pathway	220 IL-12 - STA	61,7623103
232 IL-12 ---> STAT4	221 IL-12 ---> S	61,7623103
246 beta-catenin network	235 beta-catenin	57,6195628
221 PDGF A ---> DAG, IP3	209 PDGF A --->	9,47110645
222 PDGF B --> DAG, IP3	212 PDGF B -->	9,47110645
223 PI3K ---/ p53	213 PI3K ---/ p5	9,47110645
118 MKK6 ---> Hsp27	121 MKK6 ---> I	-14,146139
136 MEK-1 ---> HIF-1alpha	154 MEK-1 --->	-11,966331
137 p38alpha ---> CREB	155 p38alpha --->	-11,966331
138 MLK2 ---MKK6---> p38a	159 MLK2 ---MF	-11,966331
139 MKK4 ---/ RXR-alpha	156 MKK4 ---/ R	-11,966331
140 TAK1 ---> p38alpha	160 TAK1 ---> p	-11,966331
141 MEKK4 ---> JNK1	161 MEKK4 --->	-11,966331
142 MLK2 ---MKK3---> p38a	157 MLK2 ---MF	-11,966331
143 ATM ---> p53	162 ATM ---> p5	-11,966331
237 IL-4 ---> STAT6	97 IL-4 ---> ST	494,973343
238 phosphorylation and ubiqu	238 phosphorylat	4,87565063
239 IL-4 - STAT6 pathway	96 IL-4 - STAT	494,973343
151 MEKK3 ---> ATF-2	171 MEKK3 --->	-10,564244
152 p38alpha ---> STAT3	173 p38alpha --->	-10,564244
153 JNK2 ---> doublecortin	174 JNK2 ---> dc	-10,564244
154 Abl ---> p73alpha	76 Abl ---> p73:	120,933048
155 MKK7 ---> c-Jun	172 MKK7 ---> c	-10,564244
156 PP2Calpha ---/ MKK4	175 PP2Calpha --	-10,564244
157 PP2Calpha ---/ MKK6	176 PP2Calpha --	-10,564244
158 Caspase-6 ---> Caspase-3	84 Caspase-6 ---	120,933048
182 Fas ---/ SRF	191 Fas ---/ SRF	-9,5268572
183 Fas ---/ NuMA	192 Fas ---/ NuM	-9,5268572
184 Unc18-1 ---/ PLD2	193 Unc18-1 ---/	-9,5268572

185 EGF ---> N-WASP	190 EGF ---> N-1 -9,5268572
186 Rac1 ---> p38	194 Rac1 ---> p3 -9,5268572
197 E1 ---/ cyclin E	222 E1 ---/ cyclin -8,7355419
198 Rac1 ---> golgin-160	223 Rac1 ---> go -8,7355419
199 MKK4 ---/ PPAR-gamma	224 MKK4 ---/ P -8,7355419
200 TPO ---> STAT3	141 TPO ---> ST. 78,5816708
201 TPO pathway	137 TPO pathwa: 78,5816708
202 PDGF B ---> cortactin	225 PDGF B ---> -8,7355419
210 POSH ---> JNK1, JNK2	239 POSH ---> JI -8,5299793
247 activin A ---> Smad2	245 activin A ---> 3,3205128
248 activin A ---> Smad3	246 activin A ---> 3,3205128
249 EGF ---> DAG, IP3	226 EGF ---> DA 43,7877239
240 EGF ---> PLD2	258 EGF ---> PL -3,5193563
241 Eps15 ---> ErbB internaliz	260 Eps15 ---> E -3,5193563
242 Fam ---> beta-catenin	254 Fam ---> bet: -3,5193563
243 FasL ---> Caspase-3	255 FasL ---> Ca -3,5193563
244 CHIP ---/ Pael-R	201 CHIP ---/ Pa: 47,3916925
245 IL-8 ---> ERK2	257 IL-8 ---> ER -3,5193563
216 Rac1 ---MLK3---> c-Jun	248 Rac1 ---MLK -7,6994168
217 CXCR1 internalization via	251 CXCR1 inter -7,6994168
218 HB-EGF ---> PI3K	249 HB-EGF ---> -7,6994168
225 Apo2L ---Caspase-8---> C	262 Apo2L ---Ca -9,434769
226 IL-2 ---> STAT5	114 IL-2 ---> ST. 236,871113
227 c-Kit pathway	182 c-Kit pathwa 52,1951315
228 IL-2 - STAT5 pathway	115 IL-2 - STAT. 236,871113



Low vs control 2 table 16

Control Rank	Pathway name	Sample Rank	Pathway name	Delta Score
1	stress-associated pathways	1	stress-associated pathwa	-18463122
3	EGF pathway	7	EGF pathway	-1240074,5
9	JNK pathway	4	JNK pathway	312366,741
5	Fas pathway	68	Fas pathway	-470668,95
2	p38 pathway	74	p38 pathway	-413551,56
7	Epo pathway	3	Epo pathway	80766,4479
4	RANKL pathway	6	RANKL pathway	-99672,158
13	PRL pathway	8	PRL pathway	50590,5866
28	Caspase network	208	Caspase network	-79775,587
6	BMP2 ---> p38alpha	9	BMP2 ---> p38alpha	-24984,741
22	Apo2L pathway	142	Apo2L pathway	-24911,919
98	T-cell antigen receptor pathw	94	T-cell antigen receptor p	-3073,3571
43	TGFbeta pathway	196	TGFbeta pathway	-18401,893
10	JNK1 ---> MKK4	91	JNK1 ---> MKK4	-17923,54
11	TAK1 ---> ATF-2	12	TAK1 ---> ATF-2	-13504,18
17	IL-8 pathway	43	IL-8 pathway	-8010,2188
105	insulin pathway	60	insulin pathway	13067,6662
12	RANKL ---> MITF	20	RANKL ---> MITF	-7780,4115
101	B-cell antigen receptor pathw	111	B-cell antigen receptor p	-2396,2436
16	Epo ---> ERK1	11	Epo ---> ERK1	1632,14209
8	EGF ---> PAK1	5	EGF ---> PAK1	1007,5612
97	PDGF pathway	42	PDGF pathway	8933,244
18	IFNgamma ---> STAT1alpha	2	IFNgamma ---> STAT1a	92648,7759
154	E2F network	100	E2F network	2517,71157
15	wnt pathway	14	wnt pathway	-1418,3267
41	alpha Iib beta3 pathway	40	alpha Iib beta3 pathway	1123,22356
42	alpha Iib beta3 ---> Rac1	41	alpha Iib beta3 ---> Rac1	1123,22356
23	EGF ---> ERK	19	EGF ---> ERK	917,016777
121	IL-1 pathway	99	IL-1 pathway	829,357405
19	ZAP-70 ---> c-Jun	15	ZAP-70 ---> c-Jun	710,938606
31	IL-1beta ---> c-Jun	28	IL-1beta ---> c-Jun	598,498705
130	TLR3 pathway	26	TLR3 pathway	22994,1472
72	neurotensin pathway	47	neurotensin pathway	1047,18339
40	fMLP pathway	57	fMLP pathway	-719,60132
46	IL-1beta ---> Elk-1	90	IL-1beta ---> Elk-1	-1603,4944
20	EGF ---> PI3K-C2beta	16	EGF ---> PI3K-C2beta	397,608782
21	RANKL ---> JNK1	17	RANKL ---> JNK1	397,608782
204	p53 pathway	178	p53 pathway	1205,13617
29	Epo ---> IP3, PtsIns(3,4)P	27	Epo ---> IP3, PtsIns(3,4)	401,99465
14	c-Cbl ---/ ErBB1	10	c-Cbl ---/ ErBB1	323,105858
123	IFN pathway	18	IFN pathway	23423,9914
215	TLR4 pathway	87	TLR4 pathway	7387,86316
26	FasL ---> Caspase-3	255	FasL ---> Caspase-3	-2242,1965
27	EGF ---> c-Fos	22	EGF ---> c-Fos	286,728346
82	RhoA ---> stress fiber format	48	RhoA ---> stress fiber fo	758,09169
83	RhoA pathway	49	RhoA pathway	758,09169

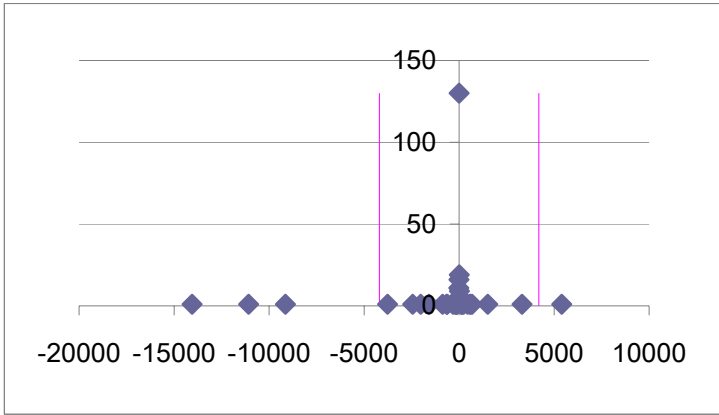
178 IL-1beta ---> p50:RelA	151 IL-1beta ---> p50:RelA	212,464158
30 LAT ---> PKCtheta	73 LAT ---> PKCtheta	-1160,239
100 LPS ---> p38	143 LPS ---> p38	-817,73304
128 Rac1 pathway	167 Rac1 pathway	-665,16308
73 parkin associated pathways	88 parkin associated pathways	-305,18865
106 BCR ---> c-Jun	89 BCR ---> c-Jun	189,886039
122 IFNalpha, IFNbeta, IFNgamma	13 IFNalpha, IFNbeta, IFNgamma	18467,9747
180 TNF-alpha pathway	189 TNF-alpha pathway	-429,95955
182 EDAR pathway	206 EDAR pathway	-391,70697
68 Aurora-A cell cycle regulation	29 Aurora-A cell cycle regulation	489,956024
69 PPAR pathway	149 PPAR pathway	-503,61367
70 Aurora-A activation, substrates	30 Aurora-A activation, substrates	489,956024
232 VEGF-A pathway	202 VEGF-A pathway	76,1903451
32 JIP-1 ---> APP	31 JIP-1 ---> APP	103,698855
71 LAT ---> cofilin	186 LAT ---> cofilin	-832,31841
124 BCR ---> p38	101 BCR ---> p38	94,8232527
199 LPS ---> NF-kappaB	180 LPS ---> NF-kappaB	69,8904834
179 G1 phase (Cdk2)	229 G1 phase (Cdk2)	-306,6831
242 tuberin pathway	214 tuberin pathway	49,9290496
183 G2/M phase (cyclin B:Cdk1)	124 G2/M phase (cyclin B:Cdk1)	833,327972
44 Apo2L ---Caspase-8---> Caspase-3	262 Apo2L ---Caspase-8---> Caspase-3	-807,29202
45 PRL ---IRS---> PI3K	46 PRL ---IRS---> PI3K	77,4657654
99 cyclosome regulatory network	45 cyclosome regulatory network	318,470866
151 BCR ---MLK3---> c-Jun	144 BCR ---MLK3---> c-Jun	69,5303956
152 BCR ---> cytoskeletal reorganization	179 BCR ---> cytoskeletal reorganization	-363,63664
153 insulin ---> glucose uptake	145 insulin ---> glucose uptake	69,5303956
24 EGF ---> STAT1alpha	23 EGF ---> STAT1alpha	64,8505929
25 ASK1 ---> p38alpha	86 ASK1 ---> p38alpha	-616,07635
108 PRL ---PI3K---> AKT	98 PRL ---PI3K---> AKT	68,1711124
155 Htt pathway	169 Htt pathway	-459,52582
217 S phase (Cdk2)	243 S phase (Cdk2)	-123,83898
172 HIF-1alpha pathway	218 HIF-1alpha pathway	-239,24138
104 p73 pathway	231 p73 pathway	-363,43928
65 TNF-alpha ---> c-Jun	63 TNF-alpha ---> c-Jun	59,5656843
66 Caspase-9 ---> Caspases	130 Caspase-9 ---> Caspases	-444,41963
67 PRL ---> PAK1	66 PRL ---> PAK1	59,5656843
64 AhR pathway	146 AhR pathway	-306,75736
252 insulin ---> AKT-1 pathway	215 insulin ---> AKT-1 pathway	222,1346
131 RANKL ---> AKT	125 RANKL ---> AKT	47,5323697
132 dsRNA ---> IKK-alpha:IKK-beta	69 dsRNA ---> IKK-alpha:IKK-beta	966,45912
109 G-alpha-q ---> arachidonic acid	122 G-alpha-q ---> arachidonic acid	-93,233702
110 fMLP ---> superoxide	123 fMLP ---> superoxide	-93,233702

96 EDA-A2 ---> c-Jun	72 EDA-A2 ---> c-Jun	46,8683803
33 EGF ---> SHIP1	32 EGF ---> SHIP1	43,9991697
34 Cis ---/ PRLR	33 Cis ---/ PRLR	43,9991697
35 EGF ---> STAT3	35 EGF ---> STAT3	43,9991697
36 SOCS-1 ---/ PRL	37 SOCS-1 ---/ PRL	43,9991697
38 SOCS-3 ---/ EpoR	38 SOCS-3 ---/ EpoR	43,9991697
39 SOCS-3 ---/ PRLR	39 SOCS-3 ---/ PRLR	43,9991697
216 MHC class II ---> NF-AT	242 MHC class II ---> NF-A'	-201,90382
126 cyclosome regulation	67 cyclosome regulation	161,594293
176 LAT ---> p50:RelA	152 LAT ---> p50:RelA	34,6367644
177 LPS ---> JNK	153 LPS ---> JNK	34,6367644
107 PRL ---> Raf-1	95 PRL ---> Raf-1	42,9139548
47 Smac ---/ cIAP-2	133 Smac ---/ cIAP-2	-320,57927
48 SHP-2 ---> PRL	50 SHP-2 ---> PRL	31,7476032
49 Smac ---/ cIAP-1	139 Smac ---/ cIAP-1	-320,57927
50 DLK ---> c-Jun	51 DLK ---> c-Jun	31,7476032
51 beta-arrestin2 ---> c-Jun	52 beta-arrestin2 ---> c-Jun	31,7476032
52 ASK1 ---DUSP19---> c-Jun	54 ASK1 ---DUSP19---> c-	31,7476032
53 PRL ---Gab-2---> PI3K	55 PRL ---Gab-2---> PI3K	31,7476032
54 PDGF B ---> PAK-1	56 PDGF B ---> PAK-1	31,7476032
127 dsRNA ---> c-Jun	21 dsRNA ---> c-Jun	3683,73871
133 LAT ---> Ras	183 LAT ---> Ras	-218,71727
134 LAT ---> MLC	184 LAT ---> MLC	-218,71727
135 MHC class I ---> LAT	187 MHC class I ---> LAT	-218,71727
228 BCR ---> NF-AT	230 BCR ---> NF-AT	-43,448585
243 Plk1 activation and substrate	147 Plk1 activation and subst	11,6512727
244 Plk1 cell cycle regulation	148 Plk1 cell cycle regulation	11,6512727
75 Epo ---> SHP-1	70 Epo ---> SHP-1	23,7848013
76 GH pathway	24 GH pathway	1159,65478
77 PDGF A ---> Crk	71 PDGF A ---> Crk	23,7848013
79 GH ---> Grb-2	25 GH ---> Grb-2	1159,65478
80 Nod1 ---> Caspase-9	165 Nod1 ---> Caspase-9	-250,32701
81 JLP ---> JNK1	166 JLP ---> JNK1	-250,32701
193 insulin ---Shc---> MAPK cas	195 insulin ---Shc---> MAPK	-39,914249
102 insulin ---Jak1---> IRS-1, IR	92 insulin ---Jak1---> IRS-1	18,3635944
103 Src ---> Rap2B	93 Src ---> Rap2B	18,3635944
198 OSM pathway	207 OSM pathway	111,261426
203 PRL ---Src,FAK1---> ERK	188 PRL ---Src,FAK1---> EF	10,8849
125 Epo ---> PIP3	113 Epo ---> PIP3	14,4887252
231 TNF-alpha ---> NFkappaB	253 TNF-alpha ---> NFkappa	-115,91745
181 OSM ---> ERK	234 OSM ---> ERK	5,63840176
146 Apaf-1 ---> Caspase-7	127 Apaf-1 ---> Caspase-7	14,0214875
147 Apaf-1 ---> Caspase-3	129 Apaf-1 ---> Caspase-3	14,0214875
148 CD19 ---> PLCgamma2	131 CD19 ---> PLCgamma2	14,0214875
149 CHIP ---/ Pael-R	201 CHIP ---/ Pael-R	-143,44515
150 Src ---/ RhoA	132 Src ---/ RhoA	14,0214875
191 VEGF-A ---> PLA2	247 VEGF-A ---> PLA2	-49,635998
156 activin A ---> Smad2	245 activin A ---> Smad2	-165,2901

157 activin A ---> Smad3	246 activin A ---> Smad3	-165,2901
158 PRL ---Fyn---> PI3K	150 PRL ---Fyn---> PI3K	9,60463526
249 dsRNA ---> p50:RelA	120 dsRNA ---> p50:RelA	771,115611
55 ErbB1 ---> endophilin 1	58 ErbB1 ---> endophilin 1	10,1005967
57 MLK2 ---> JNK1	59 MLK2 ---> JNK1	10,1005967
60 MLK2 ---MKK3---> p38alph	157 MLK2 ---MKK3---> p38	-161,66256
61 MLK2 ---MKK6---> p38alph	159 MLK2 ---MKK6---> p38	-161,66256
62 TAK1 ---> p38alpha	160 TAK1 ---> p38alpha	-161,66256
192 IFNalpha, IFNbeta ---> PI3K	118 IFNalpha, IFNbeta ---> I	290,927646
229 VEGF-A ---> NO	204 VEGF-A ---> NO	6,12239717
230 insulin ---IRS---> PRK2, SHI	205 insulin ---IRS---> PRK2,	6,12239717
264 BCR ---> ERK	252 BCR ---> ERK	-14,495184
84 MEKK3 ---> ATF-2	171 MEKK3 ---> ATF-2	-124,31694
85 MEKK2 ---MKK7---> JNK1	75 MEKK2 ---MKK7---> JI	7,18034885
86 MEKK2 ---> ATF-2	77 MEKK2 ---> ATF-2	7,18034885
87 GCK ---> MKK4	78 GCK ---> MKK4	7,18034885
88 PDGF A ---> SHP-2	79 PDGF A ---> SHP-2	7,18034885
89 MKK4 ---> c-Jun	80 MKK4 ---> c-Jun	7,18034885
90 PDGF B ---> PKR	81 PDGF B ---> PKR	7,18034885
91 TAK1 ---> c-Jun	82 TAK1 ---> c-Jun	7,18034885
92 p38alpha ---> STAT3	173 p38alpha ---> STAT3	-124,31694
93 JNK2 ---> doublecortin	174 JNK2 ---> doublecortin	-124,31694
94 Epo ---Lyn---> STAT5A	83 Epo ---Lyn---> STAT5A	7,18034885
95 MEKK2 ---> ATF-2	85 MEKK2 ---> ATF-2	7,18034885
250 mTOR ----> S6, eIF-4E	170 mTOR ----> S6, eIF-4E	172,459989
260 ZAP-70 ---> Elk-1	232 ZAP-70 ---> Elk-1	-24,169135
261 PDGF A ---> ERK	240 PDGF A ---> ERK	2,10304053
262 AKT, MAPKAPK2 ---/ tuber	233 AKT, MAPKAPK2 ---/ t	-24,169135
263 PDGF B ---> ERK	241 PDGF B ---> ERK	2,10304053
111 MKP-5 ---/ p53; MKK4 --->	102 MKP-5 ---/ p53; MKK4	5,43451329
112 VEGF-A ---> Ras	34 VEGF-A ---> Ras	484,560247
113 PKCdelta ---> GRK2	36 PKCdelta ---> GRK2	484,560247
114 PRL ---> Jak2	104 PRL ---> Jak2	5,43451329
115 PDGF B ---> Src	105 PDGF B ---> Src	5,43451329
116 PDGF A ---> Src	107 PDGF A ---> Src	5,43451329
117 SHP-1 ---/ ErbB1	108 SHP-1 ---/ ErbB1	5,43451329
118 CD148 ---/ PDGFRbeta	109 CD148 ---/ PDGFRbeta	5,43451329
119 PRL ---Jak2---> STAT5A	110 PRL ---Jak2---> STAT5,	5,43451329
120 Unc18-1 ---/ PLD2	193 Unc18-1 ---/ PLD2	-98,997621
248 beta-catenin network	235 beta-catenin network	34,4698562
137 PRL ---Src---> STAT5B	134 PRL ---Src---> STAT5B	4,16754545
138 Smac ---> Caspase-3	135 Smac ---> Caspase-3	4,16754545
139 PTEN ---/ AKT-1	136 PTEN ---/ AKT-1	4,16754545
141 Epo ---> STAT5	138 Epo ---> STAT5	4,16754545

143 EDAR ---> TRAF2	140 EDAR ---> TRAF2	4,16754545
144 ASK1 ---MKK4---> JNK1	53 ASK1 ---MKK4---> JNK1	356,494417
173 PDGF B ---> STATs	163 PDGF B ---> STATs	3,23229329
174 JNK1 ---> Bax	164 JNK1 ---> Bax	3,23229329
253 VEGF-A ---/ Caspase-9, Bad	219 VEGF-A ---/ Caspase-9, Bad	55,3539163
254 IL-12 - STAT4 pathway	220 IL-12 - STAT4 pathway	55,3539163
255 IL-12 ---> STAT4	221 IL-12 ---> STAT4	55,3539163
194 PDGF B ---SHP-2---> Ras; P	112 PDGF B ---SHP-2---> Ras; P	186,702626
196 SLP-65 ---/ Raf-1	181 SLP-65 ---/ Raf-1	2,02664399
197 PDGF B---/ Ras	116 PDGF B---/ Ras	186,702626
266 IFNalpha, IFNbeta ---> STATs	203 IFNalpha, IFNbeta ---> STATs	77,350177
218 IL-22 ---> STAT1alpha, STAT4	61 IL-22 ---> STAT1alpha, STAT4	662,994819
219 Fer ---> beta-cateninp{Tyr14	197 Fer ---> beta-cateninp{Tyr14	1,54286672
220 PDGF A ---> AKT-1	198 PDGF A ---> AKT-1	1,54286672
221 IL-22 pathway	62 IL-22 pathway	662,994819
222 IFNalpha, IFNbeta ---> STATs	126 IFNalpha, IFNbeta ---> STATs	159,009508
223 IL-10 pathway	64 IL-10 pathway	662,994819
224 PDK1 ---> 4E-BP1, p70S6K1	128 PDK1 ---> 4E-BP1, p70S6K1	159,009508
225 PDGF B ---> AKT-1	200 PDGF B ---> AKT-1	1,54286672
226 EGF ---> PLD2	258 EGF ---> PLD2	-49,368182
227 IL-10 ---> STAT1alpha, STAT4	65 IL-10 ---> STAT1alpha, STAT4	662,994819
239 EGF ---> DAG, IP3	226 EGF ---> DAG, IP3	1,11706283
240 Src ---> Rac1	227 Src ---> Rac1	1,11706283
241 Rac1 ---> c-Jun, Elk-1	228 Rac1 ---> c-Jun, Elk-1	1,11706283
200 PDGF A ---> DAG, IP3	209 PDGF A ---> DAG, IP3	-8,3625751
201 PDGF B --> DAG, IP3	212 PDGF B --> DAG, IP3	-8,3625751
202 PI3K ---/ p53	213 PI3K ---/ p53	-8,3625751
251 Csk, CD45 ---> Lck	236 Csk, CD45 ---> Lck	0,7282736
265 Csk, CD45 ---> Fyn	244 Csk, CD45 ---> Fyn	0,5094916
275 G2/M phase (cyclin A:Cdk1)	185 G2/M phase (cyclin A:Cdk1)	97,4876955
245 VHL ---> HIF-1alpha degrad	237 VHL ---> HIF-1alpha degrad	-5,2530969
246 IL-4 - STAT6 pathway	96 IL-4 - STAT6 pathway	484,844596
247 IL-4 ---> STAT6	97 IL-4 ---> STAT6	484,844596
129 MKK6 ---> Hsp27	121 MKK6 ---> Hsp27	0,8233778
267 Caspase-3 ---/ p53	256 Caspase-3 ---/ p53	-3,2546944
268 IL-8 ---> ERK2	257 IL-8 ---> ERK2	-3,2546944
269 Eps15 ---> ErbB internalizati	260 Eps15 ---> ErbB internalizati	-3,2546944
270 Hsp90 ---> AhR	261 Hsp90 ---> AhR	-3,2546944
159 MEK-1 ---> HIF-1alpha	154 MEK-1 ---> HIF-1alpha	0,99621226
161 p38alpha ---> CREB	155 p38alpha ---> CREB	0,99621226
164 MKK4 ---/ RXR-alpha	156 MKK4 ---/ RXR-alpha	0,99621226
170 MEKK4 ---> JNK1	161 MEKK4 ---> JNK1	0,99621226
185 MKK7 ---> c-Jun	172 MKK7 ---> c-Jun	0,39128725
187 PP2Calpha ---/ MKK4	175 PP2Calpha ---/ MKK4	0,39128725

188 PP2Calpha ---/ MKK6	176 PP2Calpha ---/ MKK6	0,39128725
189 Caspase-6 ---> Caspase-3	84 Caspase-6 ---> Caspase-	131,888579
208 VEGF-A ---> STAT1alpha	103 VEGF-A ---> STAT1alp	104,655952
209 EGF ---> N-WASP	190 EGF ---> N-WASP	0,22381773
210 LMW-PTP ---/ VEGFR-1	106 LMW-PTP ---/ VEGFR-	104,655952
211 Fas ---/ SRF	191 Fas ---/ SRF	0,22381773
212 Fas ---/ NuMA	192 Fas ---/ NuMA	0,22381773
214 Rac1 ---> p38	194 Rac1 ---> p38	0,22381773
276 IL-2 ---> STAT5	114 IL-2 ---> STAT5	243,760166
277 IL-2 - STAT5 pathway	115 IL-2 - STAT5 pathway	243,760166
278 OSM ---> STAT1	117 OSM ---> STAT1	243,760166
279 c-Kit pathway	182 c-Kit pathway	59,0841844
234 E1 ---/ cyclin E	222 E1 ---/ cyclin E	0,06986955
235 Rac1 ---> golgin-160	223 Rac1 ---> golgin-160	0,06986955
236 MKK4 ---/ PPAR-gamma	224 MKK4 ---/ PPAR-gamm	0,06986955
237 PDGF B ---> cortactin	225 PDGF B ---> cortactin	0,06986955
271 Rac1 ---MLK3---> c-Jun	248 Rac1 ---MLK3---> c-Jun	-0,1507663
272 HB-EGF ---> PI3K	249 HB-EGF ---> PI3K	-0,1507663
274 Hsp90 ---> AhR	250 Hsp90 ---> AhR	-0,1507663
256 POSH ---> JNK1, JNK2	239 POSH ---> JNK1, JNK2	-0,0219422



Low vs control 3 table 17

Control Rank	Pathway name	Sample Rank	Pathway name	Delta Score
1	stress-associated pathways	1	stress-associated pathways	-4225618,1
3	EGF pathway	6	EGF pathway	-308515,36
9	JNK pathway	10	JNK pathway	-153139,74
5	Fas pathway	9	Fas pathway	-181505,26
2	p38 pathway	2	p38 pathway	141663,471
7	Epo pathway	4	Epo pathway	59479,3978
4	RANKL pathway	3	RANKL pathway	58771,1312
13	PRL pathway	11	PRL pathway	37042,6937
28	Caspase network	29	Caspase network	-15181,309
6	BMP2 ---> p38alpha	5	BMP2 ---> p38alpha	5527,16262
22	Apo2L pathway	18	Apo2L pathway	6306,7894
98	T-cell antigen receptor pathway	104	T-cell antigen receptor pathway	-3934,4339
43	TGFbeta pathway	39	TGFbeta pathway	4488,03078
10	JNK1 ---> MKK4	15	JNK1 ---> MKK4	-13512,186
11	TAK1 ---> ATF-2	8	TAK1 ---> ATF-2	2495,82516
17	IL-8 pathway	78	IL-8 pathway	-9797,0704
105	insulin pathway	125	insulin pathway	-2760,6608
12	RANKL ---> MITF	12	RANKL ---> MITF	1703,11352
101	B-cell antigen receptor pathway	80	B-cell antigen receptor pathway	2097,42062
16	Epo ---> ERK1	14	Epo ---> ERK1	1230,69523
8	EGF ---> PAK1	7	EGF ---> PAK1	766,308817
97	PDGF pathway	77	PDGF pathway	1149,69064
18	IFNgamma ---> STAT1alpha	97	IFNgamma ---> STAT1	-5914,1514
154	E2F network	179	E2F network	-1058,2087
15	wnt pathway	16	wnt pathway	-1122,4335
41	alpha Iib beta3 pathway	40	alpha Iib beta3 pathway	843,881616
42	alpha Iib beta3 ---> Rac1	41	alpha Iib beta3 ---> Rac	843,881616
23	EGF ---> ERK	21	EGF ---> ERK	692,335017
121	IL-1 pathway	106	IL-1 pathway	621,907404
19	ZAP-70 ---> c-Jun	17	ZAP-70 ---> c-Jun	538,061624
31	IL-1beta ---> c-Jun	27	IL-1beta ---> c-Jun	421,708908
130	TLR3 pathway	124	TLR3 pathway	421,086088
72	neurotensin pathway	98	neurotensin pathway	-556,78965
40	fMLP pathway	47	fMLP pathway	-568,17089
46	IL-1beta ---> Elk-1	46	IL-1beta ---> Elk-1	386,097588
20	EGF ---> PI3K-C2beta	19	EGF ---> PI3K-C2beta	301,92456
21	RANKL ---> JNK1	20	RANKL ---> JNK1	301,92456
204	p53 pathway	192	p53 pathway	139,93427
29	Epo ---> IP3, PtsIns(3,4)P	26	Epo ---> IP3, PtsIns(3,4)	304,625718
14	c-Cbl ---/ ErBB1	13	c-Cbl ---/ ErBB1	246,098176
123	IFN pathway	154	IFN pathway	-1028,002
215	TLR4 pathway	198	TLR4 pathway	183,808023
26	FasL ---> Caspase-3	24	FasL ---> Caspase-3	217,871093
27	EGF ---> c-Fos	25	EGF ---> c-Fos	217,871093
82	RhoA ---> stress fiber formation	42	RhoA ---> stress fiber formation	922,553134
83	RhoA pathway	43	RhoA pathway	922,553134

178 IL-1beta ---> p50:RelA	158 IL-1beta ---> p50:RelA	160,500373
30 LAT ---> PKCtheta	79 LAT ---> PKCtheta	-1160,0667
100 LPS ---> p38	96 LPS ---> p38	156,588364
128 Rac1 pathway	123 Rac1 pathway	146,103197
73 parkin associated pathway	38 parkin associated pathw	779,818516
106 BCR ---> c-Jun	101 BCR ---> c-Jun	147,559821
122 IFNalpha, IFNbeta, IFNg	178 IFNalpha, IFNbeta, IFN	-610,17537
180 TNF-alpha pathway	205 TNF-alpha pathway	-436,12489
182 EDAR pathway	127 EDAR pathway	1017,42864
68 Aurora-A cell cycle regula	81 Aurora-A cell cycle reg	-155,37789
69 PPAR pathway	82 PPAR pathway	-155,37789
70 Aurora-A activation, subst	83 Aurora-A activation, su	-155,37789
232 VEGF-A pathway	246 VEGF-A pathway	-261,02442
32 JIP-1 ---> APP	30 JIP-1 ---> APP	79,1515752
71 LAT ---> cofilin	69 LAT ---> cofilin	88,5003242
124 BCR ---> p38	117 BCR ---> p38	72,1455615
199 LPS ---> NF-kappaB	197 LPS ---> NF-kappaB	53,0837473
179 G1 phase (Cdk2)	182 G1 phase (Cdk2)	-112,48764
242 tuberin pathway	234 tuberin pathway	37,9617806
183 G2/M phase (cyclin B:Cdl	181 G2/M phase (cyclin B:C	49,51816
44 Apo2L ---Caspase-8---> C	44 Apo2L ---Caspase-8--->	59,1711226
45 PRL ---IRS---> PI3K	45 PRL ---IRS---> PI3K	59,1711226
99 cyclosome regulatory netw	105 cyclosome regulatory n	-106,46961
151 BCR ---MLK3---> c-Jun	150 BCR ---MLK3---> c-Ju	52,9619467
152 BCR ---> cytoskeletal reor	151 BCR ---> cytoskeletal r	52,9619467
153 insulin ---> glucose uptake	152 insulin ---> glucose upt	52,9619467
24 EGF ---> STAT1alpha	22 EGF ---> STAT1alpha	49,6917809
25 ASK1 ---> p38alpha	23 ASK1 ---> p38alpha	49,6917809
108 PRL ---PI3K---> AKT	103 PRL ---PI3K---> AKT	51,9983661
155 Htt pathway	153 Htt pathway	45,6193796
217 S phase (Cdk2)	235 S phase (Cdk2)	-74,65273
172 HIF-1alpha pathway	119 HIF-1alpha pathway	189,005451
104 p73 pathway	118 p73 pathway	-88,120329
65 TNF-alpha ---> c-Jun	66 TNF-alpha ---> c-Jun	45,531586
66 Caspase-9 ---> Caspases	67 Caspase-9 ---> Caspase	45,531586
67 PRL ---> PAK1	68 PRL ---> PAK1	45,531586
252 insulin ---> AKT-1 pathwa	233 insulin ---> AKT-1 patf	46,931398
131 RANKL ---> AKT	130 RANKL ---> AKT	36,3003754
132 dsRNA ---> IKK-alpha:IK	131 dsRNA ---> IKK-alpha:	36,3003754
109 G-alpha-q ---> arachidonic	65 G-alpha-q ---> arachido	238,127677
110 fMLP ---> superoxide	126 fMLP ---> superoxide	-72,921965
96 EDA-A2 ---> c-Jun	28 EDA-A2 ---> c-Jun	1358,2791

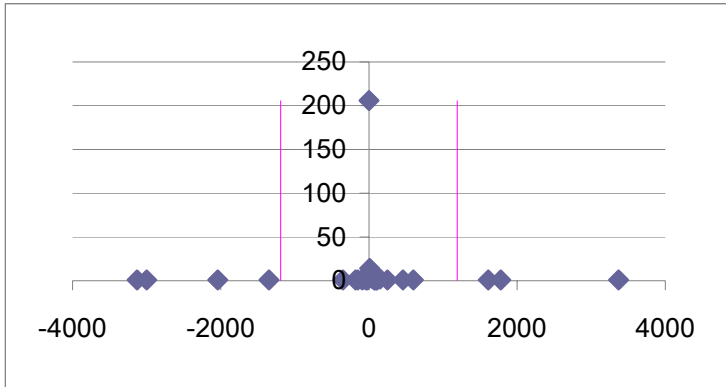
33 EGF ---> SHIP1	31 EGF ---> SHIP1	33,7445438
34 Cis ---/ PRLR	32 Cis ---/ PRLR	33,7445438
35 EGF ---> STAT3	33 EGF ---> STAT3	33,7445438
36 SOCS-1 ---/ PRL	34 SOCS-1 ---/ PRL	33,7445438
37 Htt ---/ Caspase-8	35 Htt ---/ Caspase-8	33,7445438
38 SOCS-3 ---/ EpoR	36 SOCS-3 ---/ EpoR	33,7445438
39 SOCS-3 ---/ PRLR	37 SOCS-3 ---/ PRLR	33,7445438
216 MHC class II ---> NF-AT	204 MHC class II ---> NF-AT	23,0786688
126 cyclosome regulation	132 cyclosome regulation	-60,332699
176 LAT ---> p50:RelA	159 LAT ---> p50:RelA	26,4874714
177 LPS ---> JNK	160 LPS ---> JNK	26,4874714
107 PRL ---> Raf-1	102 PRL ---> Raf-1	34,0587126
47 Smac ---/ cIAP-2	48 Smac ---/ cIAP-2	24,3689594
48 SHP-2 ---> PRL	49 SHP-2 ---> PRL	24,3689594
49 Smac ---/ cIAP-1	50 Smac ---/ cIAP-1	24,3689594
50 DLK ---> c-Jun	51 DLK ---> c-Jun	24,3689594
51 beta-arrestin2 ---> c-Jun	52 beta-arrestin2 ---> c-Jun	24,3689594
52 ASK1 ---DUSP19---> c-Jun	53 ASK1 ---DUSP19---> c-Jun	24,3689594
53 PRL ---Gab-2---> PI3K	54 PRL ---Gab-2---> PI3K	24,3689594
54 PDGF B ---> PAK-1	55 PDGF B ---> PAK-1	24,3689594
127 dsRNA ---> c-Jun	122 dsRNA ---> c-Jun	23,6659727
133 LAT ---> Ras	133 LAT ---> Ras	19,5455229
134 LAT ---> MLC	134 LAT ---> MLC	19,5455229
135 MHC class I ---> LAT	135 MHC class I ---> LAT	19,5455229
228 BCR ---> NF-AT	245 BCR ---> NF-AT	-33,798482
243 Plk1 activation and substrates	201 Plk1 activation and substrates	-69,426686
244 Plk1 cell cycle regulation	203 Plk1 cell cycle regulation	-69,426686
74 MKK3 ---> HNF-1alpha	70 MKK3 ---> HNF-1alpha	18,2740667
75 Epo ---> SHP-1	71 Epo ---> SHP-1	18,2740667
76 GH pathway	72 GH pathway	18,2740667
77 PDGF A ---> Crk	73 PDGF A ---> Crk	18,2740667
78 Apo2L ---> Caspase-10	74 Apo2L ---> Caspase-10	18,2740667
79 GH ---> Grb-2	75 GH ---> Grb-2	18,2740667
80 Nod1 ---> Caspase-9	76 Nod1 ---> Caspase-9	18,2740667
81 JLP ---> JNK1	164 JLP ---> JNK1	-248,69021
193 insulin ---Shc---> MAPK cascade	202 insulin ---Shc---> MAPK cascade	-31,06123
102 insulin ---Jak1---> IRS-1, PI3K	99 insulin ---Jak1---> IRS-1, PI3K	14,1229483
103 Src ---> Rap2B	100 Src ---> Rap2B	14,1229483
198 OSM pathway	232 OSM pathway	-26,215987
203 PRL ---Src,FAK1---> ERK	200 PRL ---Src,FAK1---> ERK	8,38491144
125 Epo ---> PIP3	120 Epo ---> PIP3	11,1547375
231 TNF-alpha ---> NFkappaB	269 TNF-alpha ---> NFkappaB	-111,69282
181 OSM ---> ERK	191 OSM ---> ERK	-23,273187
146 Apaf-1 ---> Caspase-7	137 Apaf-1 ---> Caspase-7	11,3399484
147 Apaf-1 ---> Caspase-3	138 Apaf-1 ---> Caspase-3	11,3399484
148 CD19 ---> PLCgamma2	139 CD19 ---> PLCgamma2	11,3399484
149 CHIP ---/ Pael-R	225 CHIP ---/ Pael-R	-142,42647
150 Src ---/ RhoA	226 Src ---/ RhoA	-142,42647

191 VEGF-A ---> PLA2	129 VEGF-A ---> PLA2	40,0603004
156 activin A ---> Smad2	155 activin A ---> Smad2	7,41200365
157 activin A ---> Smad3	156 activin A ---> Smad3	7,41200365
158 PRL ---Fyn---> PI3K	157 PRL ---Fyn---> PI3K	7,41200365
249 dsRNA ----> p50:RelA	252 dsRNA ----> p50:RelA	-15,754259
55 ErbB1 ---> endophilin 1	56 ErbB1 ---> endophilin 1	7,80891924
56 TAO1 ---> p38alpha	57 TAO1 ---> p38alpha	7,80891924
57 MLK2 ---> JNK1	58 MLK2 ---> JNK1	7,80891924
58 TAO2 ---MKK6---> p38al	59 TAO2 ---MKK6---> p3	7,80891924
59 E1 ---/ ErbB3	60 E1 ---/ ErbB3	7,80891924
60 MLK2 ---MKK3---> p38a	61 MLK2 ---MKK3---> p3	7,80891924
61 MLK2 ---MKK6---> p38a	62 MLK2 ---MKK6---> p3	7,80891924
62 TAK1 ---> p38alpha	63 TAK1 ---> p38alpha	7,80891924
63 TAO2 ---MKK3---> p38al	64 TAO2 ---MKK3---> p3	7,80891924
192 IFNalpha, IFNbeta ---> PI	121 IFNalpha, IFNbeta ---->	281,292408
229 VEGF-A ---> NO	270 VEGF-A ---> NO	-76,530446
230 insulin ---IRS---> PRK2, 5	231 insulin ---IRS---> PRK	3,45929436
264 BCR ---> ERK	268 BCR ---> ERK	-11,21061
84 MEKK3 ---> ATF-2	84 MEKK3 ---> ATF-2	5,56037367
85 MEKK2 ---MKK7---> JNK	85 MEKK2 ---MKK7--->	5,56037367
86 MEKK2 ---> ATF-2	86 MEKK2 ---> ATF-2	5,56037367
87 GCK ---> MKK4	87 GCK ---> MKK4	5,56037367
88 PDGF A ---> SHP-2	88 PDGF A ---> SHP-2	5,56037367
89 MKK4 ---> c-Jun	89 MKK4 ---> c-Jun	5,56037367
90 PDGF B ---> PKR	90 PDGF B ---> PKR	5,56037367
91 TAK1 ---> c-Jun	91 TAK1 ---> c-Jun	5,56037367
92 p38alpha ---> STAT3	92 p38alpha ---> STAT3	5,56037367
93 JNK2 ---> doublecortin	93 JNK2 ---> doublecortin	5,56037367
94 Epo ---Lyn---> STAT5A	94 Epo ---Lyn---> STAT5	5,56037367
95 MEKK2 ---> ATF-2	95 MEKK2 ---> ATF-2	5,56037367
250 mTOR ----> S6, eIF-4E	247 mTOR ----> S6, eIF-4E	2,20082808
260 ZAP-70 ---> Elk-1	257 ZAP-70 ---> Elk-1	1,65587112
261 PDGF A ---> ERK	258 PDGF A ---> ERK	1,65587112
262 AKT, MAPKAPK2 ---/ tu	259 AKT, MAPKAPK2 ---/	1,65587112
263 PDGF B ---> ERK	260 PDGF B ---> ERK	1,65587112
111 MKP-5 ---/ p53; MKK4 --	107 MKP-5 ---/ p53; MKK4	4,21522834
112 VEGF-A ---> Ras	108 VEGF-A ---> Ras	4,21522834
113 PKCdelta ---> GRK2	109 PKCdelta ---> GRK2	4,21522834
114 PRL ---> Jak2	110 PRL ---> Jak2	4,21522834
115 PDGF B ---> Src	111 PDGF B ---> Src	4,21522834
116 PDGF A ---> Src	112 PDGF A ---> Src	4,21522834
117 SHP-1 ---/ ErbB1	113 SHP-1 ---/ ErbB1	4,21522834
118 CD148 ---/ PDGFRbeta	114 CD148 ---/ PDGFRbeta	4,21522834
119 PRL ---Jak2---> STAT5A	115 PRL ---Jak2---> STAT	4,21522834

120 Unc18-1 ---/ PLD2	116 Unc18-1 ---/ PLD2	4,21522834
248 beta-catenin network	251 beta-catenin network	-8,8423145
136 MLK2 ---> NeuroD	140 MLK2 ---> NeuroD	3,23933989
137 PRL ---Src---> STAT5B	141 PRL ---Src---> STAT5I	3,23933989
138 Smac ---> Caspase-3	142 Smac ---> Caspase-3	3,23933989
139 PTEN ---/ AKT-1	143 PTEN ---/ AKT-1	3,23933989
140 Smurf-1 ---/ Smad7, TGFβ	144 Smurf-1 ---/ Smad7, TC	3,23933989
141 Epo ---> STAT5	145 Epo ---> STAT5	3,23933989
142 Htt ---> Ca	146 Htt ---> Ca	3,23933989
143 EDAR ---> TRAF2	147 EDAR ---> TRAF2	3,23933989
144 ASK1 ---MKK4---> JNK1	148 ASK1 ---MKK4---> JN	3,23933989
145 Fas ---/ Cdc42	149 Fas ---/ Cdc42	3,23933989
173 PDGF B ---> STATs	161 PDGF B ---> STATs	2,5189045
174 JNK1 ---> Bax	162 JNK1 ---> Bax	2,5189045
175 Htt ---> NeuroD	163 Htt ---> NeuroD	2,5189045
253 VEGF-A ---/ Caspase-9, B	262 VEGF-A ---/ Caspase-9	-7,2655744
254 IL-12 - STAT4 pathway	263 IL-12 - STAT4 pathway	-7,2655744
255 IL-12 ---> STAT4	264 IL-12 ---> STAT4	-7,2655744
194 PDGF B ---SHP-2---> Ras	193 PDGF B ---SHP-2---> I	1,59031354
195 BMP7 ---> Smad1, Smad5	194 BMP7 ---> Smad1, Smad5	1,59031354
196 SLP-65 ---/ Raf-1	195 SLP-65 ---/ Raf-1	1,59031354
197 PDGF B---/ Ras	196 PDGF B---/ Ras	1,59031354
266 IFNalpha, IFNbeta ---> STAT	230 IFNalpha, IFNbeta ---> STAT	74,0268785
218 IL-22 ---> STAT1alpha, STAT3	216 IL-22 ---> STAT1alpha	1,21768551
219 Fer ---> beta-catenin{Tyrosine}	217 Fer ---> beta-catenin{Tyrosine}	1,21768551
220 PDGF A ---> AKT-1	218 PDGF A ---> AKT-1	1,21768551
221 IL-22 pathway	219 IL-22 pathway	1,21768551
222 IFNalpha, IFNbeta ---> STAT	136 IFNalpha, IFNbeta ---> STAT	154,984104
223 IL-10 pathway	220 IL-10 pathway	1,21768551
224 PDK1 ---> 4E-BP1, p70S6	221 PDK1 ---> 4E-BP1, p70S6	1,21768551
225 PDGF B ---> AKT-1	222 PDGF B ---> AKT-1	1,21768551
226 EGF ---> PLD2	223 EGF ---> PLD2	1,21768551
227 IL-10 ---> STAT1alpha, STAT3	224 IL-10 ---> STAT1alpha	1,21768551
238 TGFbeta ---> Smad2, Smad3	241 TGFbeta ---> Smad2, STAT3	0,88970021
239 EGF ---> DAG, IP3	242 EGF ---> DAG, IP3	0,88970021
240 Src ---> Rac1	243 Src ---> Rac1	0,88970021
241 Rac1 ---> c-Jun, Elk-1	244 Rac1 ---> c-Jun, Elk-1	0,88970021
200 PDGF A ---> DAG, IP3	227 PDGF A ---> DAG, IP3	-6,4709086
201 PDGF B --> DAG, IP3	228 PDGF B --> DAG, IP3	-6,4709086
202 PI3K ---/ p53	229 PI3K ---/ p53	-6,4709086
251 Csk, CD45 ---> Lck	248 Csk, CD45 ---> Lck	0,59019364
265 Csk, CD45 ---> Fyn	261 Csk, CD45 ---> Fyn	0,42248261
275 G2/M phase (cyclin A:Cdk2)	273 G2/M phase (cyclin A:Cdk2)	-4,8873924
246 IL-4 - STAT6 pathway	249 IL-4 - STAT6 pathway	-4,0546009

247 IL-4 ---> STAT6	250 IL-4 ---> STAT6	-4,0546009
129 MKK6 ---> Hsp27	128 MKK6 ---> Hsp27	0,65351849
268 IL-8 ---> ERK2	271 IL-8 ---> ERK2	-2,5051381
269 Eps15 ---> ErbB internaliz	272 Eps15 ---> ErbB internz	-2,5051381
159 MEK-1 ---> HIF-1alpha	165 MEK-1 ---> HIF-1alphz	0,47106178
160 MKK6 ---/ MRF4	166 MKK6 ---/ MRF4	0,47106178
161 p38alpha ---> CREB	167 p38alpha ---> CREB	0,47106178
162 E1 ---/ alpha-tubulin	168 E1 ---/ alpha-tubulin	0,47106178
163 MKK6 ---> p53	169 MKK6 ---> p53	0,47106178
164 MKK4 ---/ RXR-alpha	170 MKK4 ---/ RXR-alpha	0,47106178
165 MKK4 ---p38alpha---> A1	171 MKK4 ---p38alpha--->	0,47106178
166 E1 ---/ synaptotagmin-11	172 E1 ---/ synaptotagmin-1	0,47106178
167 E1 ---/ beta-tubulin	173 E1 ---/ beta-tubulin	0,47106178
168 E1 ---/ Septin5	174 E1 ---/ Septin5	0,47106178
169 E1 ---dorfin---/ synphilin-	175 E1 ---dorfin---/ synphili	0,47106178
170 MEKK4 ---> JNK1	176 MEKK4 ---> JNK1	0,47106178
171 E1 ---parkin---/ synphilin-	177 E1 ---parkin---/ synphil	0,47106178
184 inhibitory phosphorylation	183 inhibitory phosphorylat	0,31843894
185 MKK7 ---> c-Jun	184 MKK7 ---> c-Jun	0,31843894
186 Fas ---> Caspase-8	186 Fas ---> Caspase-8	0,31843894
187 PP2Calpha ---/ MKK4	187 PP2Calpha ---/ MKK4	0,31843894
188 PP2Calpha ---/ MKK6	188 PP2Calpha ---/ MKK6	0,31843894
189 Caspase-6 ---> Caspase-3	189 Caspase-6 ---> Caspase	0,31843894
190 MEKK4 --MKK6---> ATI	190 MEKK4 --MKK6---> A	0,31843894
205 Rac1 ---/ cofilin	206 Rac1 ---/ cofilin	0,18899377
206 Fas ---> Abl	207 Fas ---> Abl	0,18899377
207 E1 ---/ alpha-synuclein	208 E1 ---/ alpha-synuclein	0,18899377
208 VEGF-A ---> STAT1alph:	209 VEGF-A ---> STAT1al	0,18899377
209 EGF ---> N-WASP	210 EGF ---> N-WASP	0,18899377
210 LMW-PTP ---/ VEGFR-1	211 LMW-PTP ---/ VEGFR	0,18899377
211 Fas ---/ SRF	212 Fas ---/ SRF	0,18899377
212 Fas ---/ NuMA	213 Fas ---/ NuMA	0,18899377
213 xolloid ---> BMP4	214 xolloid ---> BMP4	0,18899377
214 Rac1 ---> p38	215 Rac1 ---> p38	0,18899377
276 IL-2 ---> STAT5	274 IL-2 ---> STAT5	-1,9564567
277 IL-2 - STAT5 pathway	275 IL-2 - STAT5 pathway	-1,9564567
278 OSM ---> STAT1	276 OSM ---> STAT1	-1,9564567
279 c-Kit pathway	277 c-Kit pathway	-1,9564567
233 Fas ---/ PRK2	236 Fas ---/ PRK2	0,07016549
234 E1 ---/ cyclin E	237 E1 ---/ cyclin E	0,07016549
235 Rac1 ---> golgin-160	238 Rac1 ---> golgin-160	0,07016549
236 MKK4 ---/ PPAR-gamma	239 MKK4 ---/ PPAR-gamr	0,07016549
237 PDGF B ---> cortactin	240 PDGF B ---> cortactin	0,07016549
271 Rac1 ---MLK3---> c-Jun	265 Rac1 ---MLK3---> c-Ju	-0,0996784
272 HB-EGF ---> PI3K	266 HB-EGF ---> PI3K	-0,0996784

273 c-Jun degradation	267 c-Jun degradation	-0,0996784
256 POSH ---> JNK1, JNK2	253 POSH ---> JNK1, JNK2	-0,0004699
257 Fas ---> Caspase-2	254 Fas ---> Caspase-2	-0,0004699
258 Ubc9 ---/ p73alpha	255 Ubc9 ---/ p73alpha	-0,0004699



Low vs control 4 table 18

Control Rank	Pathway name	Sample Rank	Pathway name	Delta Score
	1 stress-associated pathways		1 stress-associated pathways	-7676094,7
	2 Epo pathway		3 Epo pathway	-937979,59
	5 JNK pathway		4 JNK pathway	-321067,55
	7 EGF pathway		7 EGF pathway	-430160,82
	6 PRL pathway		8 PRL pathway	-664745,47
	3 RANKL pathway		6 RANKL pathway	-258627,31
	33 insulin pathway		60 insulin pathway	-25157,486
	9 Epo ---> ERK1		11 Epo ---> ERK1	-13398,042
	34 PDGF pathway		42 PDGF pathway	-7207,7371
	57 B-cell antigen receptor path		111 B-cell antigen receptor path	-14179,736
	8 BMP2 ---> p38alpha		9 BMP2 ---> p38alpha	-11492,62
	88 T-cell antigen receptor path		94 T-cell antigen receptor path	-3410,1091
	12 IFNgamma ---> STAT1alph		2 IFNgamma ---> STAT1alpl	81524,3241
	22 alpha Iib beta3 pathway		40 alpha Iib beta3 pathway	-9787,1438
	23 alpha Iib beta3 ---> Rac1		41 alpha Iib beta3 ---> Rac1	-9787,1438
	4 EGF ---> PAK1		5 EGF ---> PAK1	-7828,1786
	56 Fas pathway		68 Fas pathway	-4664,7848
	16 EGF ---> ERK		19 EGF ---> ERK	-7512,1749
	55 IL-1 pathway		99 IL-1 pathway	-7683,7192
	13 ZAP-70 ---> c-Jun		15 ZAP-70 ---> c-Jun	-5709,7202
	42 p38 pathway		74 p38 pathway	-6241,4128
	11 TAK1 ---> ATF-2		12 TAK1 ---> ATF-2	-4544,9957
	21 IL-1beta ---> c-Jun		28 IL-1beta ---> c-Jun	-4581,3724
	17 RANKL ---> MITF		20 RANKL ---> MITF	-4249,7591
	14 RANKL ---> JNK1		17 RANKL ---> JNK1	-3210,4538
	15 EGF ---> PI3K-C2beta		16 EGF ---> PI3K-C2beta	-3210,4538
	65 IFN pathway		18 IFN pathway	19620,4253
	19 Epo ---> IP3, PtsIns(3,4)P		27 Epo ---> IP3, PtsIns(3,4)P	-3245,9518
	189 Caspase network		208 Caspase network	-448,28074
	10 c-Cbl ---/ ErBB1		10 c-Cbl ---/ ErBB1	-2544,6952
	135 TLR4 pathway		87 TLR4 pathway	4707,39832
	110 TLR3 pathway		26 TLR3 pathway	21621,6116
	18 EGF ---> c-Fos		22 EGF ---> c-Fos	-2287,5835
	89 Apo2L pathway		142 Apo2L pathway	-2408,4872
	170 E2F network		100 E2F network	4309,2346
	111 IL-1beta ---> p50:RelA		151 IL-1beta ---> p50:RelA	-1946,5118
	54 neurotensin pathway		47 neurotensin pathway	470,803888
	63 BCR ---> c-Jun		89 BCR ---> c-Jun	-1475,9317
	64 IL-1beta ---> Elk-1		90 IL-1beta ---> Elk-1	-1475,9317
	87 G2/M phase (cyclin B:Cdk1		124 G2/M phase (cyclin B:Cdk1	-1484,7253
	43 RhoA ---> stress fiber forma		48 RhoA ---> stress fiber form:	79,7031455
	44 RhoA pathway		49 RhoA pathway	79,7031455
	80 IFNalpha, IFNbeta, IFNgam		13 IFNalpha, IFNbeta, IFNgan	17032,6069
	209 p53 pathway		178 p53 pathway	1383,79166
	91 IL-8 pathway		43 IL-8 pathway	2404,12436
	53 fMLP pathway		57 fMLP pathway	57,2213329

32 wnt pathway	14 wnt pathway	2219,2154
24 JIP-1 ---> APP	31 JIP-1 ---> APP	-861,54428
84 BCR ---> p38	101 BCR ---> p38	-813,22692
145 LPS ---> NF-kappaB	180 LPS ---> NF-kappaB	-699,49207
129 Rac1 pathway	167 Rac1 pathway	-674,02007
35 PRL ---IRS---> PI3K	46 PRL ---IRS---> PI3K	-638,9838
212 TGFbeta pathway	196 TGFbeta pathway	300,640415
107 LPS ---> p38	143 LPS ---> p38	-622,08226
108 insulin ---> glucose uptake	145 insulin ---> glucose uptake	-622,08226
109 BCR ---MLK3---> c-Jun	144 BCR ---MLK3---> c-Jun	-622,08226
168 tuberin pathway	214 tuberin pathway	-537,6783
79 PRL ---PI3K---> AKT	98 PRL ---PI3K---> AKT	-593,95904
20 EGF ---> STAT1alpha	23 EGF ---> STAT1alpha	-536,64953
86 parkin associated pathways	88 parkin associated pathways	20,6686123
45 IL-22 ---> STAT1alpha, ST.	61 IL-22 ---> STAT1alpha, ST	-500,36958
46 IL-22 pathway	62 IL-22 pathway	-500,36958
47 TNF-alpha ---> c-Jun	63 TNF-alpha ---> c-Jun	-500,36958
48 IL-10 ---> STAT1alpha, ST.	65 IL-10 ---> STAT1alpha, ST	-500,36958
49 IL-10 pathway	64 IL-10 pathway	-500,36958
50 PRL ---> PAK1	66 PRL ---> PAK1	-500,36958
196 VEGF-A pathway	202 VEGF-A pathway	-23,057567
160 EDAR pathway	206 EDAR pathway	-424,02414
104 RANKL ---> AKT	125 RANKL ---> AKT	-423,04912
62 EDA-A2 ---> c-Jun	72 EDA-A2 ---> c-Jun	-402,30142
25 EGF ---> SHIP1	32 EGF ---> SHIP1	-372,8499
26 Cis ---/ PRLR	33 Cis ---/ PRLR	-372,8499
27 VEGF-A ---> Ras	34 VEGF-A ---> Ras	-372,8499
28 EGF ---> STAT3	35 EGF ---> STAT3	-372,8499
29 SOCS-3 ---/ EpoR	38 SOCS-3 ---/ EpoR	-372,8499
30 SOCS-1 ---/ PRL	37 SOCS-1 ---/ PRL	-372,8499
31 SOCS-3 ---/ PRLR	39 SOCS-3 ---/ PRLR	-372,8499
66 Aurora-A cell cycle regulati	29 Aurora-A cell cycle regulati	654,562351
67 Aurora-A activation, substra	30 Aurora-A activation, substra	654,562351
68 PPAR pathway	149 PPAR pathway	-339,00735
203 S phase (Cdk2)	243 S phase (Cdk2)	-287,03886
206 insulin ---> AKT-1 pathway	215 insulin ---> AKT-1 pathway	27,7599446
81 PRL ---> Raf-1	95 PRL ---> Raf-1	-330,7043
127 LPS ---> JNK	153 LPS ---> JNK	-327,32379
128 LAT ---> p50:RelA	152 LAT ---> p50:RelA	-327,32379
90 dsRNA ---> c-Jun	21 dsRNA ---> c-Jun	3370,22696
36 DLK ---> c-Jun	51 DLK ---> c-Jun	-280,63942
37 beta-arrestin2 ---> c-Jun	52 beta-arrestin2 ---> c-Jun	-280,63942

38 ASK1 ---DUSP19---> c-Jun	54 ASK1 ---DUSP19---> c-Jun	-280,63942
39 PRL ---Gab-2---> PI3K	55 PRL ---Gab-2---> PI3K	-280,63942
40 PDGF B ---> PAK-1	56 PDGF B ---> PAK-1	-280,63942
41 SHP-2 ---> PRL	50 SHP-2 ---> PRL	-280,63942
85 cyclosome regulatory netwo	45 cyclosome regulatory netwo	431,870017
147 BCR ---> cytoskeletal reorg	179 BCR ---> cytoskeletal reorg	-234,92306
150 HIF-1alpha pathway	218 HIF-1alpha pathway	-108,01139
58 GH pathway	24 GH pathway	923,902417
59 PDGF A ---> Crk	71 PDGF A ---> Crk	-211,96757
60 GH ---> Grb-2	25 GH ---> Grb-2	923,902417
61 Epo ---> SHP-1	70 Epo ---> SHP-1	-211,96757
169 OSM pathway	207 OSM pathway	-187,41846
229 G1 phase (Cdk2)	229 G1 phase (Cdk2)	76,3767772
105 G-alpha-q ---> arachidonic a	122 G-alpha-q ---> arachidonic a	-13,776248
106 fMLP ---> superoxide	123 fMLP ---> superoxide	-13,776248
82 Src ---> Rap2B	93 Src ---> Rap2B	-169,51428
83 insulin ---Jak1---> IRS-1, IR	92 insulin ---Jak1---> IRS-1, IR	-169,51428
144 mTOR ----> S6, eIF-4E	170 mTOR ----> S6, eIF-4E	-157,18199
112 cyclosome regulation	67 cyclosome regulation	228,621722
148 dsRNA ---> IKK-alpha:IKK	69 dsRNA ---> IKK-alpha:IKK	1135,41289
230 TNF-alpha pathway	189 TNF-alpha pathway	351,471944
102 Epo ---> PIP3	113 Epo ---> PIP3	-139,44007
103 OSM ---> STAT1	117 OSM ---> STAT1	-139,44007
159 PRL ---Src,FAK1---> ERK	188 PRL ---Src,FAK1---> ERK	-129,65625
113 Caspase-9 ----> Caspases	130 Caspase-9 ----> Caspases	-117,34786
114 Apaf-1 ---> Caspase-7	127 Apaf-1 ---> Caspase-7	-117,34786
115 CD19 ----> PLCgamma2	131 CD19 ---> PLCgamma2	-117,34786
116 PDK1 ---> 4E-BP1, p70S6K	128 PDK1 ---> 4E-BP1, p70S6K	-117,34786
117 Apaf-1 ---> Caspase-3	129 Apaf-1 ---> Caspase-3	-117,34786
193 dsRNA ----> p50:RelA	120 dsRNA ---> p50:RelA	626,776833
194 OSM ---> ERK	234 OSM ---> ERK	-95,564343
130 PRL ---Fyn---> PI3K	150 PRL ---Fyn---> PI3K	-103,2628
205 p73 pathway	231 p73 pathway	15,5522883
51 ErbB1 ---> endophilin 1	58 ErbB1 ---> endophilin 1	-98,167357
52 MLK2 ---> JNK1	59 MLK2 ---> JNK1	-98,167357
173 Plk1 activation and substrate	147 Plk1 activation and substrate	96,0216415
174 Plk1 cell cycle regulation	148 Plk1 cell cycle regulation	96,0216415
235 MHC class II ---> NF-AT	242 MHC class II ---> NF-AT	66,6732071
236 BCR ---> NF-AT	230 BCR ---> NF-AT	53,6013383
149 IFNalpha, IFNbeta ---> PI3K	118 IFNalpha, IFNbeta ---> PI3K	206,842176
164 G2/M phase (cyclin A:Cdk1	185 G2/M phase (cyclin A:Cdk1	-69,325076
165 LAT ---> MLC	184 LAT ---> MLC	-69,325076
166 LAT ---> cofilin	186 LAT ---> cofilin	-69,325076
167 MHC class I ---> LAT	187 MHC class I ---> LAT	-69,325076
69 TAK1 ---> c-Jun	82 TAK1 ---> c-Jun	-73,982961
70 MEKK2 ---MKK7---> JNK	75 MEKK2 ---MKK7---> JNK	-73,982961
71 MEKK2 ---> ATF-2	77 MEKK2 ---> ATF-2	-73,982961
72 Epo ---Lyn---> STAT5A	83 Epo ---Lyn---> STAT5A	-73,982961

73 MEKK2 ---> ATF-2	85 MEKK2 ---> ATF-2	-73,982961
74 GCK ---> MKK4	78 GCK ---> MKK4	-73,982961
75 PDGF A ---> SHP-2	79 PDGF A ---> SHP-2	-73,982961
76 MKK4 ---> c-Jun	80 MKK4 ---> c-Jun	-73,982961
77 PDGF B ---> PKR	81 PDGF B ---> PKR	-73,982961
78 ASK1 ---> p38alpha	86 ASK1 ---> p38alpha	-73,982961
219 insulin ---Shc---> MAPK ca	195 insulin ---Shc---> MAPK ca	53,1387324
171 insulin ---IRS---> PRK2, SF	205 insulin ---IRS---> PRK2, SF	-62,470105
172 VEGF-A ---> NO	204 VEGF-A ---> NO	-62,470105
195 Htt pathway	169 Htt pathway	63,2113627
187 VEGF-A ---/ Caspase-9, Bax	219 VEGF-A ---/ Caspase-9, Bax	-58,750655
92 MKP-5 ---/ p53; MKK4 --->	102 MKP-5 ---/ p53; MKK4 --->	-60,724239
93 PDGF B ---> Src	105 PDGF B ---> Src	-60,724239
94 LMW-PTP ---/ VEGFR-1	106 LMW-PTP ---/ VEGFR-1	-60,724239
95 PDGF A ---> Src	107 PDGF A ---> Src	-60,724239
96 SHP-1 ---/ ErbB1	108 SHP-1 ---/ ErbB1	-60,724239
97 CD148 ---/ PDGFRbeta	109 CD148 ---/ PDGFRbeta	-60,724239
98 PRL ---Jak2---> STAT5A	110 PRL ---Jak2---> STAT5A	-60,724239
99 PKCdelta ---> GRK2	36 PKCdelta ---> GRK2	418,401495
100 VEGF-A ---> STAT1alpha	103 VEGF-A ---> STAT1alpha	-60,724239
101 PRL ---> Jak2	104 PRL ---> Jak2	-60,724239
207 PDGF A ---> ERK	240 PDGF A ---> ERK	-48,266372
208 PDGF B ---> ERK	241 PDGF B ---> ERK	-48,266372
215 BCR ---> ERK	252 BCR ---> ERK	-41,877796
119 EDAR ---> TRAF2	140 EDAR ---> TRAF2	-48,685582
120 Smac ---/ cIAP-2	133 Smac ---/ cIAP-2	-48,685582
121 PRL ---Src---> STAT5B	134 PRL ---Src---> STAT5B	-48,685582
122 ASK1 ---MKK4---> JNK1	53 ASK1 ---MKK4---> JNK1	303,64129
123 Smac ---> Caspase-3	135 Smac ---> Caspase-3	-48,685582
124 PTEN ---/ AKT-1	136 PTEN ---/ AKT-1	-48,685582
125 Epo ---> STAT5	138 Epo ---> STAT5	-48,685582
126 Smac ---/ cIAP-1	139 Smac ---/ cIAP-1	-48,685582
213 VEGF-A ---> PLA2	247 VEGF-A ---> PLA2	7,56272533
131 Nod1 ---> Caspase-9	165 Nod1 ---> Caspase-9	-41,446066
132 JLP ---> JNK1	166 JLP ---> JNK1	-41,446066
133 PDGF B ---> STATs	163 PDGF B ---> STATs	-41,446066
134 JNK1 ---> Bax	164 JNK1 ---> Bax	-41,446066
220 TNF-alpha ---> NFkappaB	253 TNF-alpha ---> NFkappaB	7,80304799
175 TBK1:TRIF:IKK-i ---> p50:	216 TBK1:TRIF:IKK-i ---> p50	5,04204197
146 JNK1 ---> MKK4	91 JNK1 ---> MKK4	185,009376
161 PDGF B ---SHP-2---> Ras; 1	112 PDGF B ---SHP-2---> Ras;	151,605852
162 SLP-65 ---/ Raf-1	181 SLP-65 ---/ Raf-1	-33,07013
163 PDGF B---/ Ras	116 PDGF B---/ Ras	151,605852
188 VEGF-A ---> NF-ATc	168 VEGF-A ---> NF-ATc	28,6973885

176 Fer ---> beta-catenin{ Tyr1	197 Fer ---> beta-catenin{ Tyr1	-28,869757
177 PDGF A ---> AKT-1	198 PDGF A ---> AKT-1	-28,869757
178 IFNalpha, IFNbeta ---> STA	126 IFNalpha, IFNbeta ---> ST/	128,596884
179 OSM ---> STAT3	199 OSM ---> STAT3	-28,869757
180 PDGF B ---> AKT-1	200 PDGF B ---> AKT-1	-28,869757
181 Src ---/ RhoA	132 Src ---/ RhoA	128,596884
190 Src ---> Rac1	227 Src ---> Rac1	-26,246512
191 Rac1 ---> c-Jun, Elk-1	228 Rac1 ---> c-Jun, Elk-1	-26,246512
192 LAT ---> PKCtheta	73 LAT ---> PKCtheta	519,433446
233 ZAP-70 ---> Elk-1	232 ZAP-70 ---> Elk-1	15,4437971
234 AKT, MAPKAPK2 ---/ tube	233 AKT, MAPKAPK2 ---/ tubi	15,4437971
204 Csk, CD45 ---> Lck	236 Csk, CD45 ---> Lck	-24,068509
211 Csk, CD45 ---> Fyn	244 Csk, CD45 ---> Fyn	-23,149229
214 LAT ---> Ras	183 LAT ---> Ras	74,8558722
224 IFNalpha, IFNbeta ---> STA	203 IFNalpha, IFNbeta ---> ST/	69,0783454
231 IL-12 - STAT4 pathway	220 IL-12 - STAT4 pathway	61,7623103
232 IL-12 ---> STAT4	221 IL-12 ---> STAT4	61,7623103
246 beta-catenin network	235 beta-catenin network	57,6195628
221 PDGF A ---> DAG, IP3	209 PDGF A ---> DAG, IP3	9,47110645
222 PDGF B --> DAG, IP3	212 PDGF B --> DAG, IP3	9,47110645
223 PI3K ---/ p53	213 PI3K ---/ p53	9,47110645
118 MKK6 ---> Hsp27	121 MKK6 ---> Hsp27	-14,146139
136 MEK-1 ---> HIF-1alpha	154 MEK-1 ---> HIF-1alpha	-11,966331
137 p38alpha ---> CREB	155 p38alpha ---> CREB	-11,966331
138 MLK2 ---MKK6---> p38alp	159 MLK2 ---MKK6---> p38alp	-11,966331
139 MKK4 ---/ RXR-alpha	156 MKK4 ---/ RXR-alpha	-11,966331
140 TAK1 ---> p38alpha	160 TAK1 ---> p38alpha	-11,966331
141 MEKK4 ---> JNK1	161 MEKK4 ---> JNK1	-11,966331
142 MLK2 ---MKK3---> p38alp	157 MLK2 ---MKK3---> p38alp	-11,966331
143 ATM ---> p53	162 ATM ---> p53	-11,966331
237 IL-4 ---> STAT6	97 IL-4 ---> STAT6	494,973343
238 phosphorylation and ubiquit	238 phosphorylation and ubiquit	4,87565063
239 IL-4 - STAT6 pathway	96 IL-4 - STAT6 pathway	494,973343
151 MEKK3 ---> ATF-2	171 MEKK3 ---> ATF-2	-10,564244
152 p38alpha ---> STAT3	173 p38alpha ---> STAT3	-10,564244
153 JNK2 ---> doublecortin	174 JNK2 ---> doublecortin	-10,564244
154 Abl ---> p73alpha	76 Abl ---> p73alpha	120,933048
155 MKK7 ---> c-Jun	172 MKK7 ---> c-Jun	-10,564244
156 PP2Calpha ---/ MKK4	175 PP2Calpha ---/ MKK4	-10,564244
157 PP2Calpha ---/ MKK6	176 PP2Calpha ---/ MKK6	-10,564244
158 Caspase-6 ---> Caspase-3	84 Caspase-6 ---> Caspase-3	120,933048
182 Fas ---/ SRF	191 Fas ---/ SRF	-9,5268572
183 Fas ---/ NuMA	192 Fas ---/ NuMA	-9,5268572
184 Unc18-1 ---/ PLD2	193 Unc18-1 ---/ PLD2	-9,5268572

185 EGF ---> N-WASP	190 EGF ---> N-WASP	-9,5268572
186 Rac1 ---> p38	194 Rac1 ---> p38	-9,5268572
197 E1 ---/ cyclin E	222 E1 ---/ cyclin E	-8,7355419
198 Rac1 ---> golgin-160	223 Rac1 ---> golgin-160	-8,7355419
199 MKK4 ---/ PPAR-gamma	224 MKK4 ---/ PPAR-gamma	-8,7355419
200 TPO ---> STAT3	141 TPO ---> STAT3	78,5816708
201 TPO pathway	137 TPO pathway	78,5816708
202 PDGF B ---> cortactin	225 PDGF B ---> cortactin	-8,7355419
210 POSH ---> JNK1, JNK2	239 POSH ---> JNK1, JNK2	-8,5299793
247 activin A ---> Smad2	245 activin A ---> Smad2	3,3205128
248 activin A ---> Smad3	246 activin A ---> Smad3	3,3205128
249 EGF ---> DAG, IP3	226 EGF ---> DAG, IP3	43,7877239
240 EGF ---> PLD2	258 EGF ---> PLD2	-3,5193563
241 Eps15 ---> ErbB internalizat	260 Eps15 ---> ErbB internaliza	-3,5193563
242 Fam ---> beta-catenin	254 Fam ---> beta-catenin	-3,5193563
243 FasL ---> Caspase-3	255 FasL ---> Caspase-3	-3,5193563
244 CHIP ---/ Pael-R	201 CHIP ---/ Pael-R	47,3916925
245 IL-8 ---> ERK2	257 IL-8 ---> ERK2	-3,5193563
216 Rac1 ---MLK3---> c-Jun	248 Rac1 ---MLK3---> c-Jun	-7,6994168
217 CXCR1 internalization via c	251 CXCR1 internalization via c	-7,6994168
218 HB-EGF ---> PI3K	249 HB-EGF ---> PI3K	-7,6994168
225 Apo2L ---Caspase-8---> Cas	262 Apo2L ---Caspase-8---> Ca	-9,434769
226 IL-2 ---> STAT5	114 IL-2 ---> STAT5	236,871113
227 c-Kit pathway	182 c-Kit pathway	52,1951315
228 IL-2 - STAT5 pathway	115 IL-2 - STAT5 pathway	236,871113
		81938,3084

