RT² Profiler PCR Array (Rotor-Gene® Format) Human Insulin Resistance

Cat. no. 330231 PAHS-156ZR

For pathway expression analysis

Format	For use with the following real-time cyclers
RT ² Profiler PCR Array,	Rotor-Gene Q, other Rotor-Gene cyclers
Format R	

Description

The Human Insulin Resistance RT² Profiler PCR Array profiles the expression of 84 key genes involved in the mechanisms behind non-insulin dependent diabetes mellitus (NIDDM) in adipose tissue. During food consumption, insulin release activates insulin signaling and cellular uptake of glucose, resulting in synthesis and storage of carbohydrates and lipids. Resistance to insulin can develop late in life, especially after a prolonged high-calorie diet and in association with other risk factors. Insulin-resistant individuals are vulnerable to multiple pathophysiologies as a result of residual blood glucose, including development of NIDDM, or type 2 diabetes. NIDDM is frequently accompanied by obesity and additional related pathologies (i.e., cardiovascular disease), collectively called the metabolic syndrome. Insulin resistance is a key link between obesity and NIDDM, and may be caused by dysregulation of the complex signaling between adipose tissue, pancreatic islets, liver, and skeletal muscle. Adipose tissue modulates food intake, as well as carbohydrate and lipid metabolism, through release of hormones called adipokines. In addition, activation of the innate immune system has been linked to adipose tissue inflammation and the development of insulin resistance via the NLRP3 inflammasome. This tissue is chronically inflamed during obesity, marked by an increase of inflammatory cytokines and infiltrating leukocytes. This array includes adipose genes involved in insulin and adipokine signaling, genes commonly dysregulated in NIDDM, genes involved in innate immunity and inflammatory processes, and enzymes and transporters important for carbohydrate and lipid metabolism. The results of this array can yield insights into the dysregulated mechanisms of insulin resistance using adipose tissue as a model system. Using real-time PCR, research studies can easily and reliably analyze the expression of a focused panel of genes involved in adipose tissue insulin resistance mechanisms with this array.

For further details, consult the RT² Profiler PCR Array Handbook.

Shipping and storage

RT² Profiler PCR Arrays in the Rotor-Gene format are shipped at ambient temperature, on dry ice, or blue ice packs depending on destination and accompanying products.

For long term storage, keep plates at –20°C.

Note: Ensure that you have the correct RT² Profiler PCR Array format for your real-time cycler (see table above).

Note: Open the package and store the products appropriately immediately on receipt.



Sample & Assay Technologies

Array layout

The 96 real-time assays in the Rotor-Gene format are located in wells 1–96 of the Rotor-Disc[™] (plate A1–A12=Rotor-Disc 1–12, plate B1–B12=Rotor-Disc 13–24, etc.). To maintain data analysis compatibility, wells 97–100 do not contain real-time assays but will contain master mix to account for weight balance.

Gene table: RT² Profiler PCR Array

A01 Hs 160556 NM, 1983.4 ACACA Aceyl-CoA carboxylase lefta A02 Hs 204678 NM, 001093 ACACB Acyl-CoA synthesise long-chain family member 1 A03 Hs 204678 NM, 001997 ACSL1 Acyl-CoA synthesise long-chain family member 4 A04 Hs 52485 NM, 001997 ADIPOR Adupcet family fam	Position	UniGene	GenBank	Symbol	Description
A02 Hz 324898 NM 001995 ACACB Acy-CoA carbox/less letter A03 Hz 326875 NM 001995 ACSL1 Acy-CoA synthesise long-chain family member 1 A04 Hz 3268755 NM 004977 ADIPOQ Adjonectin, C10 and collagen domain containing A05 Hz 326878 NM 019797 ADIPOQ Adjonectin, C10 and collagen domain containing A06 Hz 327642 NM 000588 ACR3 V-alt murine hymoma wirel encogene homolog 3 (protein kiness B, gamma) A07 Hz 32499 NM 000588 ACR51 V-alt murine hymoma wirel encogene homolog 3 (protein kiness B, gamma) A10 Hz 545499 NM 000582 CGR91 Capase 1, appotation-taiced cybenia periphicas (protein-taice sequence) A11 Hz 2490 NM 000579 CCC85 Chemokine (CC motif) receptor 4 B62 Hz 306489 NM 000579 CCC85 CDamokine (CC motif) receptor 4 B63 Hz 3049 NM 000579 CCC85 CDamokine (CC motif) receptor 4 B64 Hz 30449 NM 000579 CCB3 CD36 McDamokine (C-K motif) receptor 4 B64	A01	Hs.160556	NM_198834	ACACA	Acetyl-CoA carboxylase alpha
A03 Hs.406678 NM, 001995 ACSL1 Acyl-CoA synthesise long-chain family member 1 A04 Hs.268755 NM, 004458 ACSL4 Acyl-CoA synthesise long-chain family member 4 A05 Hs.8085 NM, 001997 ADIPOR Adiponectin receptor 1 A07 Hs.271642 NM, 005455 AT3 Volt murine hymoma vical encogene homolog 3 (protein knose 8, gamma) A08 Hs.849292 NM, 000504 AT3 Volt murine hymoma vical encogene homolog 3 (protein knose 8, gamma) A10 Hs.54439 NM, 000504 ACOS Acachidonate 5-lipoxygenicae A11 Hs.2400 NM, 000504 CCS2 Caspose 1, oppotosin-reliated cystein specificae (thristeakin 1, beta, convertise) A12 Hs.200449 NM, 000508 CCS4 Chemokine [C-C motif] aceptor 4 B01 Hs.18420 NM, 0005072 CCR6 Chemokine [C-C motif] aceptor 5 B03 Hs.46680 NM, 000373 CCR6 CDB4 molecule, epsilon (CDB-TRC complex) B04 Hs.12049 NM, 000373 CDS1 CDD3 molecule (thristeaptor) B05 Hs.308040 NM, 0	A02	Hs.234898	NM_001093	ACACB	Acetyl-CoA carboxylase beta
A04 Hs.2685 NM.00458 ACS.4 Acyl-CoA synthetise long-chain family member 4 A05 Hs.80455 NM.004797 ADIPOR Adiponetin, CI Q and collegen domain containing A06 Hs.271642 NM.024551 ADIPOR Adiponetin receptor 1 A07 Hs.371642 NM.024551 ADIPOR2 Adiponetin receptor 2 A08 Hs.49829 NM.000465 AKT3 V.adi murine thymomo viral ancagane homolog 1 (protein kinase 8, gamma) A10 Hs.64439 NM.000508 CCASPI Composite 1, apoptosis-related optime pergidose (interleukin 1, beta, convertase) A11 Hs.2490 NM.000570 CCR4 Chemokine (C-C motif) receptor 5 B02 Hs.45060 NM.000370 CCR6 CDB3 molecule (mrombappondin receptor) B04 Hs.12049 NM.000733 CDB4 CCB4 CCB4 B05 Hs.30603 NM.00173 CDB4 CCB4 CCB4 CDB4 B06 Hs.21824 NM.001728 CHIK Comemokine (C-C motif) receptor 3 B07 Hs.198978 NM.0101278 CHIK	A03	Hs.406678	NM_001995	ACSL1	Acyl-CoA synthetase long-chain family member 1
Ad5 Hs.80485 NM.004797 ADIPCR Adigonetin receptor 1 A06 Hs.2788 NM.005451 ADIPCRI Adigonetin receptor 1 A07 Hs.2784 NM.005455 ADIPCRI Adigonetin receptor 1 A08 Hs.84929 NM.005465 AX13 V-Val murine thymomore inclongenerate hemolog.3 [protein kinase 8, garmen] A10 Hs.64343 NM.00049 ALX3 V-Val murine thymomore inclongenerate A11 Hs.26443 NM.000292 CCE12 Chemokine [C-C motif] flegold 2 B01 Hs.18426 NM.000379 CCR4 Chemokine [C-C motif] receptor 4 B02 Hs.46468 NM.000379 CCR5 CDBermokine [C-C motif] receptor 5 B03 Hs.46468 NM.000372 CD36 CD36 molecule, ginsition [CO-T cell]; receptor 4 B04 Hs.10249 NM.00073 CD37 CCR4 CCAAT/mhonare binding protein (CER), elpha B07 Hs.18249 NM.00172 CD3 CCD205 CCB4 CCHC-type zinc finits ubujituus kinese B08 Hs.182729 NM.001012 CR14	A04	Hs.268785	NM_004458	ACSL4	Acyl-CoA synthetase long-chain family member 4
A06 Ht.5298 NM. 01599 ADIPORI Adigonetin receptor 1 A07 Hts.71642 NM. 024551 ADIPOR2 Adjonetin receptor 2 A08 Hts.498292 NM. 005465 AKT3 V-del murine thymomo viral ancagane homolog 2 (protini kinose 8, gamma) A09 Hts.84439 NM. 005991 ACX51 Acadiotante 5-lipoxyganose A11 Hts.24920 NM. 003292 CCS21 Chemokine (C-C motif) frequencial in the status) A12 Hts.303649 NM. 003508 CCR4 Chemokine (C-C motif) receptor 4 B00 Hts.46468 NM. 003670 CCR5 Chemokine (C-C motif) receptor 5 B03 Hts.46468 NM. 000733 CD36 CD36 molecule, epsilon (CD3-TCR complex) B04 Hts.129949 NM. 001278 CHUK Conserved helic-toop-helix buigtons kinase B07 Hts.189799 NM. 001278 CHUK Conserved helic-toop-helix buigtons kinase B08 Hts.218249 NM. 001278 CHUK Conserved helic-toop-helix buigtons kinase B08 Hts.21824 NM. 001404 CKR42 Chemokine (C-	A05	Hs.80485	NM_004797	ADIPOQ	Adiponectin, C1Q and collagen domain containing
A07 Hs.371642 NM.02450 ADIPOR2 Adigonetin receptor 2 A08 Hs.498292 NM.005465 AXT3 V-val murite Hymomic vice nonseqle 3 (protein fainces B, gorman) A09 Hs.89499 NM.000648 AXX3 V-val murite Hymomic vice nonseqle of the	A06	Hs.5298	NM_015999	ADIPOR1	Adiponectin receptor 1
A08 Hs.49829 NM. 000545 AKT3 V-old murine thymoma viral oncogene homolog 3 (protein kinase B, gamma) A10 Hs.69499 NM. 000691 APOE Anachidonte S-lpoxygenase A11 Hs.2490 NM. 000578 Cospose 1, apoptosis-related cystein registicus (interfeuch 1, bets, convertase) A12 Hs.303549 NM. 003578 CCR4 Chemokine (C-C motif) receptor 4 B02 Hs.440802 NM. 003578 CCR4 Chemokine (C-C motif) receptor 5 B03 Hs.440802 NM. 000578 CCR5 Chemokine (C-C motif) receptor 5 B04 Hs.120949 NM. 000733 CD36 CD36 molecule, (bnombespondin receptor) B05 Hs.30943 NM. 001278 CCB47 (chronharce binding protein (C/EB7), alpha B07 Hs.19898 NM. 001278 CCNF Clastory anchiecule, moleica cid binding protein B08 Hs.518240 NM. 001278 CNR CCarsered heik-loop-heik biguingtus kinase B09 Hs.28729 NM. 001041 CXR Chemokine (C-X-C motif) receptor 3 B10 Hs.28720 NM. 001042 CXR4 Chemokine (A07	Hs.371642	NM_024551	ADIPOR2	Adiponectin receptor 2
A09 HL 89499 NM (000698 ALOX5 Arachidonate 5-lipogenesis A10 HL 654439 NM (002322) CASPI Cespase 1, apoptosis-indeed cyterine pertidiced (interleukin 1, beta, convertase) A12 HL 3003409 NM (00292) CASPI Cespase 1, apoptosis-indeed cyterine pertidiced (interleukin 1, beta, convertase) A12 HL 3003409 NM (000577 CCR5 Chemokine (C-C motif) receptor 4 B03 HL 346468 NM (00072 CCR6 CD3a molecule (thrombospond) receptor 5 B04 HL 3003409 NM (00072 CD36 CD3a molecule, explinis (CD3-TCR complex) B05 HL 300340 NM (00172 CD36 CD3a molecule, explinis (CD3-TCR complex) B07 HL 310249 NM (00172 CHUK Conserved helic-toop-helic ubiquitous knoae B08 HL 518249 NM (00177 CS Circle apriloar Circle apriloar B10 HL 30826 NM (00177 CS Circle apriloar Circle apriloar B12 HL 593413 NM (00147 CKR3 Chemokine (C-X-C motif) receptor 3 B12 HL 593414	A08	Hs.498292	NM_005465	AKT3	V-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma)
A10 Hs.634439 NM_000011 APOE Apolipoptotin E A11 Hs.2490 NM_003292 CASP1 Coepsos 1, apoptosi-related cysterine peptidison (interlewin 1, beto, convertose) A12 Hs.240449 NM_002508 CCR4 Chemokine (C-C motif) ligond 2 B01 Hs.440468 NM_000570 CCR5 Chemokine (C-C motif) receptor 5 B03 Hs.44648 NM_000733 CD3E CD3s molecule, pation (C-C motif) receptor 4 B04 Hs.120949 NM_000733 CD3E CD3s molecule, pation (C-C motif) receptor 1 B05 Hs.3003 NM_000733 CD3E CD3e molecule, pation (C-R BP), aphn B06 Hs.518249 NM_0012128 CRLF2 Cytokine receptor-like factor 2 B07 Hs.1989729 NM_00101288 CRLF2 Cytokine receptor-like factor 2 B10 Hs.430606 NM_001047 CS Citrate symbose B11 Hs.19825 NM_0010142 FABP4 Chemokine (C-X-C motif) receptor 3 C02 Hs.391501 NM_0010412 FABP4 Fotty acid binding protan / a diporyte	A09	Hs.89499	NM_000698	ALOX5	Arachidonate 5-lipoxygenase
Al1 Hs.2490 NM_032922 CASP Carpose 1, oppriosi-related cytaine periodized (interleukin 1, beta, convertase) Al2 Hs.303469 NM_00292 CCL2 Chemokine (C-C motif) receptor 4 B01 Hs.184926 NM_005068 CCR4 Chemokine (C-C motif) receptor 5 B03 Hs.456802 NM_000372 CCR5 Chemokine (C-C motif) receptor 6 B04 Hs.120494 NM_00072 CC36 CD36 molecule [thrombospondin receptor] B05 Hs.3003 NM_00072 CC36 CD36 molecule [thrombospondin receptor] B06 Hs.20729 NM_000172 CS CCR4/Technoner binding protein (CSFP) alpha B07 Hs.128729 NM_00172 CS Chernokine (C-K cmotif) receptor 3 B10 Hs.28729 NM_001071 CS Chernokine (C-K cmotif) receptor 3 B11 Hs.198252 NM_001074 CSR Chernokine (C-K cmotif) receptor 3 B12 Hs.28729 NM_001047 CXCR4 Chernokine (C-K cmotif) receptor 3 B12 Hs.3931561 NM_00147 EXR4 Chemokine (C-K cmotif) receptor 3 <td>A10</td> <td>Hs.654439</td> <td>NM_000041</td> <td>APOE</td> <td>Apolipoprotein E</td>	A10	Hs.654439	NM_000041	APOE	Apolipoprotein E
A12 Hs.3026449 NM. 005082 CCL2 Chemokine (C-C motif) ligend 2 B01 Hs.184926 NM. 005079 CCR5 Chemokine (C-C motif) receptor 4 B02 Hs.46408 NM. 000379 CCR5 Chemokine (C-C motif) receptor 5 B03 Hs.46408 NM. 000373 CD36 CD36 molecule (thrombospondin receptor 4 B05 Hs.3093 NM.00333 CD3E CD38 molecule, epsilon (CD3-TCR complex) B06 Hs.509249 NM.001278 CHUK Conserved helix-top-helix biguitous kinase B07 Hs.198998 NM.001278 CHUK Conserved helix-top-helix biguitous kinase B08 Hs.430606 NM.004347 CS2 Chrots mithinse Control mathinse B10 Hs.430606 NM.0010248 CKI2 Chemokine (C-X- motif) receptor 3 B12 Hs.92313 NM.00347 CXCR4 Chemokine (C-X- motif) receptor 4 C01 Hs.32375 NM.00147 EARP Forty acid ymfnase C02 Hs.33190 NM.00144 FARP4 Foty acid ymfnase C03	A11	Hs.2490	NM_033292	CASP1	Caspase 1, apoptosis-related cysteine peptidase (interleukin 1, beta, convertase)
B01 Hs 184926 NM. 0005508 CCR4 Chemokine [C-C motif) receptor 4 B02 Hs 450802 NM. 00072 CCR5 Chemokine [C-C motif) receptor 5 B03 Hs 450802 NM. 00072 CD36 CD36 molecule, grain prespondin receptor 1 B04 Hs 120947 NM. 00072 CD36 CCD36 molecule, grain prespondin receptor 1 B05 Hs 3003 NM. 00072 CD36 CCAT/enhoncer binding protein (CFBP), dipha B06 Hs 59443 NM. 001237 CHUK Conserved helic code binding protein B07 Hs 189249 NM. 00121288 CREP2 Cytokine receptor-like tode binding protein B08 Hs 198249 NM. 004077 CS CCIrole synthese B10 Hs 430606 NM. 004077 CS Colinde synthese B11 Hs 198252 NM. 001874 EXR1 EgFLike module containing, mucin-like, hormone receptor 4 C02 Hs 391541 NM. 004104 FASN Featy acid synthese C03 Hs 38100 NM. 004104 FASN Featy acid synthose C04	A12	Hs.303649	NM_002982	CCL2	Chemokine (C-C motif) ligand 2
B02 Hs.450802 NM.000379 CCR5 Chemoking [C-C motif) receptor 5 B03 Hs.46468 NM.000373 CCR6 Chemoking (C-C motif) receptor 6 B04 Hs.120949 NM.00033 CD36 CD36 molecule, epsilon (CD3-TCR complex) B05 Hs.3093 NM.00434 CEBA CCAAT(refinance binding protein (CFBP), dpha B06 Hs.59849 NM.00434 CEBPA CCAAT(refinance binding protein (CFBP), dpha B07 Hs.198998 NM.001278 CHUK Conserved helix-loop-helix binding protein B08 Hs.518249 NM.00101288 CRLF2 Cytokin receptor 1ile factor 2 B10 Hs.480066 NM.0014077 CS Clinet symifase B11 Hs.198252 NM.001346 CXCR4 Chemokine (C-X: motif) receptor 3 B12 Hs.291581 NM.00144 CKR4 Chemokine (C-X: motif) receptor 4 C03 Hs.39161 NM.001442 FABP4 Fatty acid symifase C04 Hs.402666 NM.000189 HK16 Interval and symifase C05 Hs.8565	B01	Hs.184926	NM_005508	CCR4	Chemokine (C-C motif) receptor 4
B03 Hs.46468 NM. 004267 CCR6 Chemoking [C-C multiplic sceptor 6 B04 Hs.120449 NM. 000733 CD36 CD36 molecule (thrombospondin receptor) B05 Hs.3003 NM_00233 CD32 CD38 molecule, epsilon (CD3.TCR complex) B06 Hs.69463 NM_001278 CHUK Conserved helicx-loop-helic blicitory kinese B07 Hs.198978 NM_001278 CFUE Cytokine receptor-like factor 2 B08 Hs.287729 NM_0010128 CREP Cytokine receptor-like factor 2 B10 Hs.480606 NM_004077 CS Citrate synthase B11 Hs.939413 NM_003164 CXCR3 Chemokine (C-X-C motif) receptor 3 B12 Hs.4934413 NM_001407 CXCR4 Chemokine (C-X-C motif) receptor 4 C01 Hs.293413 NM_001404 FASN Faty and synthase C02 Hs.31900 NM_004104 FASN Faty and synthase C03 Hs.83190 NM_000619 IFNG Interferon synthase C04 Hs.406262 NM_0000619 <td>B02</td> <td>Hs.450802</td> <td>NM_000579</td> <td>CCR5</td> <td>Chemokine (C-C motif) receptor 5</td>	B02	Hs.450802	NM_000579	CCR5	Chemokine (C-C motif) receptor 5
B04 Hs.120949 NM.000072 CD36 CD36 molecule (npolospondin receptor) B05 Hs.3003 NM.000733 CD3E CD3e molecule, epsilon (CD3-TCR complex) B06 Hs.699463 NM.001278 CHUK CCAAT/enhoncer binding protein (C/EBP, alpha B07 Hs.19829 NM.001278 CHUK Conserved helis-loop-hilk ubiquitous kinase B08 Hs.51824 NM.0001728 CRF2 Cytokine receptor-like factor 2 B10 Hs.430606 NM.0017288 CRF2 Cytokine receptor-like factor 2 B11 Hs.198242 NM.00164 CXCR3 Chemokine [CX-C motif] receptor 3 B12 Hs.59313 NM.00174 EMR1 Egf-like module containing, mucin-like, hormone receptor-like 1 C03 Hs.83190 NM.001144 FABP4 Fatty acid binding protein 4, adipocyte C04 Hs.40626 NM.001140 FASN Fatty acid binding protein 4, adipocyte C05 Hs.83190 NM.001140 FASN Fatty acid binding protein 4, adipocyte C06 Hs.40266 NM.000156 IFKB Insteriokins 6, adip	B03	Hs.46468	NM 004367	CCR6	Chemokine (C-C motif) receptor 6
B05 H:3003 NM_000733 CD3E	B04	Hs.120949	NM_000072	CD36	CD36 molecule (thrombospondin receptor)
B06 Hs.899463 NM_001278 CEBPA CCAAT/enhancer binding protein (C/EBP), alpha B07 Hs.198998 NM_001278 CHUK Conserved helix-loop-helix ubiquious kinose B08 Hs.518244 NM_001278 CRIP2 Cytokine receptor-like factor 2 B09 Hs.287279 NM_001012288 CRIP2 Cytokine receptor-like factor 2 B10 Hs.430660 NM_000177 CS Citrate synthose B11 Hs.98252 NM_001504 CXCR3 Chemokine (C-X-C motif) receptor 3 B12 Hs.29151 NM_001442 FABP4 Fotty acid binding protein 4, adipocyte C001 Hs.83100 NM_000144 FASP4 Fotty acid binding protein 4, adipocyte C03 Hs.8356 NM_000149 HK2 Heaviance acid synthose C04 Hs.406266 NM_000181 IGF1 Insulin-like growth factor 1 (somatomedin C) C05 Hs.836 NM_000875 IGF1R Insulin-like growth factor 1 (somatomedin C) C06 Hs.406266 NM_000875 ILB Interfewkin 2 (somatomedin C) <t< td=""><td>B05</td><td>Hs.3003</td><td>NM 000733</td><td>CD3E</td><td>CD3e molecule, epsilon (CD3-TCR complex)</td></t<>	B05	Hs.3003	NM 000733	CD3E	CD3e molecule, epsilon (CD3-TCR complex)
B07 Hs.198998 NM.001278 CHUK Conserved helix-loop-helix ubiquitous kinase B08 Hs.518249 NM.00112288 CRIP2 Cytokine receptor-like factor 2 B10 Hs.287729 NM.001077 CS Citrate synthase B11 Hs.198252 NM.001504 CXCR3 Chemokine (C-X-C motif) receptor 3 B11 Hs.29731 NM.001442 FABP4 Fathy acid binding profein 4, adipocyte C01 Hs.2375 NM.001442 FABP4 Fathy acid synthose C02 Hs.405266 NM.000199 HK2 Hexokinase 2 C03 Hs.81950 NM.000199 HK2 Hexokinase 2 C04 Hs.406266 NM.000019 IFNG Interferon, gamma C05 Hs.63764 NM.0000175 IGF1R Insulin-like growth factor 1 receptor C06 Hs.107626 NM.000375 IL181 Interlevkin 12 receptor 1 C10 Hs.207264 NM.000376 IL181 Interlevkin 12 receptor 1 C10 Hs.2054458 NM.0003676 IL181 Int	B06	Hs.699463	NM 004364	CEBPA	CCAAT/enhancer binding protein (C/EBP), alpha
B08 Hs.18249 NM_003418 CNBP CCHC-type zinc finger, nucleic ocid binding protein B09 Hs.287729 NM_001012288 CRF2 Cytokin erceptor-like factor 2 B10 Hs.4306.06 NM_00477 CS Citrate synthase B11 Hs.198252 NM_00174 CXCR3 Chemokine (C-X-C motif) receptor 3 B12 Hs.29375 NM_001474 EMRI Egf-like module containing, mucin-like, hormone receptor-like 1 C01 Hs.2315.01 NM_001442 FABP4 Fatty ocid binding protein 4, odipocyte C03 Hs.83190 NM_00144 FASN Fatty ocid binding protein 4, odipocyte C04 Hs.406266 NM_000189 HK2 Hexokinase 2 C05 Hs.8360 NM_0001818 IGF1 Insulin-like growth factor 1 (somatomedin C) C06 Hs.105522 NM_0003855 ILTBR1 Interleukin 18 receptor Insulin-like growth factor 1 receptor C08 Hs.59764 NM_00177 ILTR Interleukin 18 receptor 1 Interleukin 18 receptor C10 Hs.456744 NM_000576 ILTB	B07	Hs.198998	NM 001278	CHUK	Conserved helix-loop-helix ubiquitous kinase
B09 Hs.287729 NM.001012288 CRLF2 Cytokine receptor-like factor 2 B10 Hs.430606 NM.001504 CXCR3 Chemokine (C-X-C motif) receptor 3 B11 Hs.198252 NM.001504 CXCR3 Chemokine (C-X-C motif) receptor 3 B12 Hs.593413 NM.003467 CXCR4 Chemokine (C-X-C motif) receptor 4 C01 Hs.231561 NM.00142 FABP4 Fatty acid synthase C02 Hs.391561 NM.00142 FABP4 Fatty acid synthase C03 Hs.33190 NM.001199 HK2 Hexokinase 2 C04 Hs.460266 NM.000019 IFK2 Hexokinase 2 C05 Hs.856 NM.000075 ICF1R Insulin-like growth factor 1 (somatomedin C) C07 Hs.64720 NM.000875 ICF1R Insulin-like growth factor 1 receptor C08 Hs.10526 NM.000576 ILB1 Interleukin 1 receptor 1 C10 Hs.126256 NM.000576 ILB1 Interleukin 3 receptor 1 C11 Hs.07426 NM.000576 ILB1	B08	Hs.518249	NM 003418	CNBP	CCHC-type zinc finger, nucleic acid binding protein
B10 Hs.430606 NM_004077 CS Citrate synthose B11 Hs.198252 NM_001504 CXCR3 Chemokine [C-X-C motif] receptor 3 B12 Hs.599413 NM_00147 EXR1 Egf-like module containing, mucin-like, hormone receptor-like 1 C01 Hs.2375 NM_00142 FABP4 Fatty acid binding protein 4, adipocyte C03 Hs.30100 NM_000140 FASN Fatty acid binding protein 4, adipocyte C04 Hs.406266 NM_000189 HK2 Hesokinase 2 C05 Hs.85100 NM_000619 IFNG Interferon, gamma C06 Hs.160562 NM_000875 ICF1R Insulin-like growth factor 1 (somatomedin C) C07 Hs.643120 NM_000875 ILF1R Interleukin 18 receptor 1 C08 Hs.597664 NM_000876 IL18 Interleukin 18 receptor 1 C10 Hs.169564 NM_000877 IL181 Interleukin 1 (seta) C11 Hs.074644 NM_000208 IL8 Interleukin 6 (interferon, beta 2) D10 Hs.657444 NM_0	B09	Hs.287729	NM 001012288	CRLF2	Cytokine receptor-like factor 2
B11 Hs.198252 NM_001504 CXCR3 Chemokine (C-X-C motif) receptor 3 B12 Hs.593413 NM_003467 CXCR4 Chemokine (C-X-C motif) receptor 4 C01 Hs.391561 NM_00174 EMR1 Egf-like module containing, mucin-like, hormone receptor-like 1 C02 Hs.391561 NM_00142 FABP4 Fatty acid synthase C03 Hs.406266 NM_000189 HK2 HexoKinase 2 C04 Hs.406266 NM_000189 HK2 HexoKinase 2 C05 Hs.645120 NM_000618 IGF1 Insulin-like growth factor 1 (somatomedin C) C06 Hs.10562 NM_000875 IGF1R Insulin-like growth factor 1 (somatomedin C) C07 Hs.649521 NM_000875 IL18 Interleukin 1 factor 1 receptor 1 C10 Hs.126256 NM_000877 IL18 Interleukin 1 receptor 1 C11 Hs.207426 NM_000807 IL18 Interleukin 1 receptor 1 C11 Hs.67448 NM_000584 IL8 Interleukin 1 receptor 1 D01 Hs.6544 NM_00	B10	Hs.430606	- NM 004077	CS	Citrate synthase
B12 Hs.593413 NM_003467 CXCR4 Chemokine (C-X-C molif) receptor 4 C01 Hs.2375 NM_001974 EMR1 Egf-like module containing, mucin-like, hormone receptor-like 1 C02 Hs.33190 NM_00140 FASN Fatty acid binding protein 4, adipcyte C03 Hs.83190 NM_000189 HK2 Hexokinase 2 C04 Hs.406266 NM_000618 IGF1 Insulin-like growth factor 1 (somatomedin C) C05 Hs.856 NM_000618 IGF1 Insulin-like growth factor 1 (somatomedin C) C06 Hs.65664 NM_001556 IKBKB Inhibitor of kappa light polypeptide gene enhancer in 8-cells, kinase beta C09 Hs.469521 NM_003855 IL18R1 Interleukin 18 receptor 1 C10 Hs.172626 NM_000877 IL18 Interleukin 23 receptor 1 C11 Hs.707426 NM_000600 IL6 Interleukin 23 receptor 1 C12 Hs.67444 NM_000208 IL82 Insulin receptor 32 receptor 1 D01 Hs.62444 NM_000208 IL82 Insulin receptor 32 receptor 1	B11	Hs.198252	NM 001504	CXCR3	Chemokine (C-X-C motif) receptor 3
C01 Hs.2375 NM_001974 EMR1 Egf-like module containing, mucin-like, hormone receptor-like 1 C02 Hs.391561 NM_001442 FABP4 Fatty acid binding protein 4, adipocyte C03 Hs.83100 NM_000104 FASN Forty acid synthase C04 Hs.406266 NM_000189 HK2 Hexokinase 2 C05 Hs.856 NM_000618 IGF1 Insulin-like growth factor 1 (somatomedin C) C06 Hs.643120 NM_000875 IGF1R Insulin-like growth factor 1 receptor C08 Hs.597664 NM_000875 ILI8RI Interleukin 18 receptor 1 C10 Hs.162626 NM_000877 ILI8 Interleukin 18 receptor 1 C10 Hs.26265 NM_000877 ILI8 Interleukin 23 receptor C11 Hs.6744 NM_000884 IL8 Interleukin 23 receptor D01 Hs.654458 NM_000584 IL8 Interleukin 6 D02 Hs.624 NM_000281 IL851 Insulin receptor D03 Hs.46744 NM_000230 IL8	B12	Hs.593413	NM 003467	CXCR4	Chemokine (C-X-C motif) receptor 4
C02 Hs.391561 NM_001442 FABP4 Fatty acid binding protein 4, adipocyte C03 Hs.83190 NM_004104 FASN Fatty acid synthose C04 Hs.406266 NM_000189 HK2 Hexokinase 2 C05 Hs.856 NM_000619 IFNG Instending growth factor 1 (somatomedin C) C06 Hs.100562 NM_000875 IGF1R Insulin-like growth factor 1 (somatomedin C) C07 Hs.643120 NM_000875 IGF1R Insulin-like growth factor 1 (somatomedin C) C08 Hs.597664 NM_000875 IL18R1 Interleukin 18 receptor C10 Hs.128256 NM_000877 IL181 Interleukin 1 receptor, type I C11 Hs.707862 NM_000874 IL82 Interleukin 23 receptor D01 Hs.654458 NM_0000884 IL8 Interleukin 1 seceptor, type I D02 Hs.465744 NM_000208 INSR Insulin receptor substrate 1 D03 Hs.465744 NM_000208 INSR Insulin receptor D04 Hs.705413 NM_0002737	C01	Hs.2375	NM 001974	EMR1	Egf-like module containing, mucin-like, hormone receptor-like 1
C03 Hs.83190 NM_004104 FASN Fatty acid synthase C04 Hs.406266 NM_000189 HK2 Hexokinase 2 C05 Hs.856 NM_000619 IFNG Interferon, gamma C06 Hs.160562 NM_000618 IGF1 Insulin-like growth factor 1 (somatomedin C) C07 Hs.643120 NM_000875 IGF1R Insulin-like growth factor 1 (somatomedin C) C08 Hs.597664 NM_000875 IGF1R Insulin-like growth factor 1 (somatomedin C) C09 Hs.469521 NM_000877 IL18 Interleukin 18 receptor 1 C10 Hs.16266 NM_000376 IL18 Interleukin 1 Receptor 1 C11 Hs.701982 NM_000877 IL1R1 Interleukin 23 receptor D01 Hs.6444 NM_000584 IL8 Interleukin 6 (interferon, beta 2) D02 Hs.645744 NM_000208 INSR Insulin receptor substrate 1 D03 Hs.465744 NM_0002303 IEP Leptin D04 Hs.75413 NM_0002303 LEP Lepti	C02	Hs.391561	NM 001442	FABP4	Fatty acid binding protein 4, adipocyte
C04 Hs.406266 NM_000189 HK2 Hexokinase 2 C05 Hs.856 NM_000619 IFNG Interferon, gamma C06 Hs.160562 NM_000875 IGF1 Insulin-like growth factor 1 (somatomedin C) C07 Hs.643120 NM_000875 IGF1 Insulin-like growth factor 1 (somatomedin C) C08 Hs.597664 NM_000875 ILR8 Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta C09 Hs.469521 NM_000877 IL181 Interleukin 1 receptor 1 C10 Hs.677426 NM_000877 IL1R1 Interleukin 1 receptor, type 1 C11 Hs.677426 NM_000504 IL8 Interleukin 6 (interreny, beta 2) D01 Hs.645744 NM_000524 IR8 Insulin receptor D02 Hs.645744 NM_000524 IR81 Insulin receptor D03 Hs.445744 NM_000524 IR82 Insulin receptor substrate 1 D05 Hs.442344 NM_000272 JAK2 Janus kinase 2 D06 Hs.656213 NM_002303	C03	Hs.83190	NM 004104	FASN	Fatty acid synthase
C05 Hs.856 NM_000619 IFNG Interferon, gamma C06 Hs.160562 NM_000619 IFNG Insulin-like growth factor 1 (somatomedin C) C07 Hs.643120 NM_000875 IGF1R Insulin-like growth factor 1 receptor C08 Hs.597664 NM_001556 ILTR Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta C09 Hs.469521 NM_000875 ILTB Interleukin 18 receptor 1 C10 Hs.126256 NM_000877 ILTB Interleukin 1 receptor, type 1 C11 Hs.77426 NM_144701 IL23R Interleukin 2 receptor D01 Hs.654458 NM_000208 IL8 Interleukin 3 receptor D02 Hs.6744 NM_000208 IL8 Interleukin 8 D03 Hs.465744 NM_000208 INSR Insulin receptor D04 Hs.471508 NM_000204972 JAK2 Janus kinase 2 D05 Hs.4233 NM_000230 IEPR Leptin receptor D06 Hs.6562013 NM_000237 IPE	C04	Hs.406266	NM 000189	HK2	Hexokingse 2
C06 Hs.160562 NM_000618 IGF1 Insulin-like growth factor 1 (somatomedin C) C07 Hs.643120 NM_000875 IGF1R Insulin-like growth factor 1 receptor C08 Hs.597664 NM_001556 IKBKB Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta C09 Hs.469521 NM_003855 IL18R1 Interleukin 18 receptor 1 C10 Hs.126256 NM_000877 IL18 Interleukin 1 receptor, type 1 C11 Hs.701982 NM_000600 IL6 Interleukin 28 receptor D01 Hs.654458 NM_000600 IL6 Interleukin 3 receptor D02 Hs.624 NM_000208 INSR Insulin receptor substrate 1 D03 Hs.465744 NM_000208 INSR Insulin receptor substrate 1 D04 Hs.45726 NM_0005749 IRS2 Insulin receptor substrate 1 D05 Hs.442344 NM_002303 LEP Leptin D06 Hs.656801 NM_002303 LEPR Leptin receptor D07 Hs.1805788 NM_00237	C05	Hs.856	NM 000619	IFNG	Interferon, gamma
C07 Hs.643120 NM_000875 IGF1R Insulin-like growth factor 1 receptor C08 Hs.597664 NM_001556 IKBKB Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta C09 Hs.469521 NM_003855 IL18R1 Interleukin 18 receptor 1 C10 Hs.12626 NM_000576 IL1B Interleukin 18 receptor 1 C11 Hs.701982 NM_000877 IL1R1 Interleukin 1 receptor, type I C12 Hs.677426 NM_000600 IL6 Interleukin 6 (interferon, beta 2) D01 Hs.654458 NM_000208 INSR Insulin receptor D02 Hs.65744 NM_000208 INSR Insulin receptor substrate 1 D03 Hs.465744 NM_002030 IEP Leptin D04 Hs.70513 NM_003749 IRS2 Insulin receptor substrate 1 D05 Hs.442344 NM_002303 LEP Leptin Leptin D06 Hs.056480 NM_002303 LEP Leptin receptor D07 Hs.194236 NM_002375	C06	Hs.160562	NM 000618	IGF1	Insulin-like growth factor 1 (somatomedin C)
C08 Hs.597664 NM_001556 IKBKB Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta C09 Hs.469521 NM_003576 IL18R1 Interleukin 18 receptor 1 C10 Hs.126256 NM_000576 IL18 Interleukin 18 receptor 1 C11 Hs.701982 NM_000877 IL1R1 Interleukin 1 receptor, type 1 C12 Hs.677426 NM_144701 IL28 Interleukin 3 receptor D01 Hs.654458 NM_000600 IL6 Interleukin 6 (interferon, beta 2) D02 Hs.624 NM_000584 IL8 Interleukin 8 D03 Hs.465744 NM_000208 INSR Insulin receptor D04 Hs.471508 NM_002304 IRS1 Insulin receptor substrate 1 D05 Hs.442344 NM_002303 IEPR Leptin D06 Hs.656980 NM_002337 LIPE Lipase, hormone-sensitive D10 Hs.180878 NM_002375 LIPE Lipase, hormone-sensitive D10 Hs.180878 NM_002375 MAP2X1	C07	Hs.643120	NM 000875	IGF1R	Insulin-like growth factor 1 receptor
C09 Hs.469521 NM_003855 IL18R1 Interleukin 1 Interleukin 1 Receptor 1 C10 Hs.126256 NM_000877 IL18 Interleukin 1 Interleukin 1 pector C11 Hs.701982 NM_000877 IL18 Interleukin 1 receptor C12 Hs.67426 NM_00060 IL6 Interleukin 23 receptor D01 Hs.654458 NM_000584 IL8 Interleukin 6 (interferon, beta 2) D02 Hs.465744 NM_000584 IL8 Insulin receptor D04 Hs.471508 NM_000574 IRS1 Insulin receptor substrate 1 D05 Hs.442344 NM_000230 IEP Leptin D06 Hs.656213 NM_002303 IEP Leptin D08 Hs.705413 NM_00237 IPE Lipase, hormone-sensitive D10 Hs.180878 NM_00237 IPE Lipase, hormone-sensitive D10 Hs.180878 NM_002375 MAPX Mitogen-activated protein kinase 1 D11 Hs.524448	C08	Hs.597664	NM 001556	IKBKB	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta
C10 Hs.126256 NM_000576 IL1B Interleukin 1, beta C11 Hs.701982 NM_000877 IL1R1 Interleukin 1 receptor, type I C12 Hs.677426 NM_144701 IL23R Interleukin 23 receptor D01 Hs.654458 NM_000500 IL6 Interleukin 6 (interferon, beta 2) D02 Hs.624 NM_000208 INSR Insulin receptor D03 Hs.465744 NM_000208 INSR Insulin receptor D04 Hs.471508 NM_005544 IRS1 Insulin receptor substrate 1 D05 Hs.4471368 NM_000729 JAK2 Janus kinase 2 D06 Hs.656213 NM_000230 LEP Leptin D08 Hs.705413 NM_002303 LEPR Leptin receptor D09 Hs.656980 NM_00237 LIPE Lipase, hormone-sensitive D10 Hs.180878 NM_00237 LPL Lipoprotein lipase D11 Hs.524648 NM_002755 MAP2K1 Mitogen-activated protein kinase 3 E02 <td>C09</td> <td>Hs.469521</td> <td>NM 003855</td> <td>IL18R1</td> <td>Interleukin 18 receptor 1</td>	C09	Hs.469521	NM 003855	IL18R1	Interleukin 18 receptor 1
C11 Hs.701982 NM_000877 IL1R1 Interleukin 1 receptor, type I C12 Hs.677426 NM_144701 IL23R Interleukin 23 receptor D01 Hs.654458 NM_000504 IL6 Interleukin 6 (interferon, beta 2) D02 Hs.654458 NM_000584 IL8 Interleukin 8 D03 Hs.465744 NM_000208 INSR Insulin receptor D04 Hs.471508 NM_0005844 IRS1 Insulin receptor D05 Hs.445744 NM_003749 IRS2 Insulin receptor substrate 1 D06 Hs.656213 NM_004972 JAK2 Janus kinase 2 D06 Hs.656213 NM_00230 LEP Leptin D08 Hs.705413 NM_002303 LEPR Leptin receptor D09 Hs.65680 NM_00237 LPL Lipoprotein lipase D11 Hs.524648 NM_002755 MAP2K1 Mitogen-activated protein kinase 1 E01 Hs.84371 NM_002746 MAPK3 Mitogen-activated protein kinase 9 E0	C10	Hs.126256	NM 000576	IL1B	Interleukin 1, beta
C12 Hs.677426 NM_144701 IL23R Interleukin 23 receptor D01 Hs.654458 NM_000600 IL6 Interleukin 6 (interferon, beta 2) D02 Hs.624 NM_000584 IL8 Interleukin 6 D03 Hs.465744 NM_000584 IL8 Interleukin 8 D03 Hs.465744 NM_000584 IRS1 Insulin receptor D04 Hs.471508 NM_005544 IRS1 Insulin receptor substrate 1 D05 Hs.442344 NM_003749 IRS2 Insulin receptor substrate 2 D06 Hs.656213 NM_004972 JAK2 Janus kinase 2 D07 Hs.194236 NM_002303 LEP Leptin D08 Hs.705413 NM_002303 LEPR Leptin D09 Hs.65680 NM_00237 LPL Lipase, hormone-sensitive D10 Hs.180878 NM_002755 MAP2K1 Mitogen-activated protein kinase 1 E01 Hs.8431 NM_002752 MAPK9 Mitogen-activated protein kinase 9 E03	C11	Hs.701982	NM 000877	IL1R1	Interleukin 1 receptor, type I
D01 Hs.654458 NM_000600 IL6 Interleukin 6 (interferon, beta 2) D02 Hs.624 NM_000584 IL8 Interleukin 8 D03 Hs.465744 NM_000208 INSR Insulin receptor D04 Hs.471508 NM_005544 IRS1 Insulin receptor D05 Hs.442344 NM_005544 IRS1 Insulin receptor substrate 1 D05 Hs.450213 NM_004972 JAK2 Janus kinase 2 D06 Hs.656213 NM_002303 LEP Leptin D08 Hs.705413 NM_002303 LEP Leptin D09 Hs.656980 NM_00237 LP Lipase, hormone-sensitive D10 Hs.180878 NM_000275 LIPE Lipase, hormone-sensitive D11 Hs.524648 NM_000275 MAP2K1 Mitogen-activated protein kinase kinase 1 E01 Hs.145442 NM_002755 MAP2K1 Mitogen-activated protein kinase 9 E03 Hs.484371 NM_002752 MAPK9 Mitogen-activated protein kinase 9	C12	Hs.677426	NM 144701	IL23R	Interleukin 23 receptor
D02 Hs.624 NM_000584 IL8 Interleukin 8 D03 Hs.465744 NM_000208 INSR Insulin receptor D04 Hs.4571508 NM_005544 IRS1 Insulin receptor substrate 1 D05 Hs.442344 NM_003749 IRS2 Insulin receptor substrate 2 D06 Hs.656213 NM_004972 JAK2 Janus kinase 2 D07 Hs.194236 NM_002303 LEP Leptin D08 Hs.705413 NM_002303 LEP Leptin receptor D09 Hs.656980 NM_00237 LIPE Lipase, hormone-sensitive D10 Hs.180878 NM_000237 LPL Lipoprotein lipase D11 Hs.524648 NM_0002755 MAP2K1 Mitogen-activated protein kinase kinase 1 E01 Hs.145442 NM_002755 MAPK3 Mitogen-activated protein kinase 9 E02 Hs.484371 NM_002752 MAPK9 Mitogen-activated protein kinase 9 E03 Hs.38207 NM_004758 MTOR Mechanistic target of rapamycin (serine/threonine	D01	Hs.654458	NM 000600	IL6	Interleukin 6 (interferon, betg 2)
D03 Hs.465744 NM_000208 INSR Insulin receptor D04 Hs.471508 NM_005544 IRS1 Insulin receptor substrate 1 D05 Hs.442344 NM_003749 IRS2 Insulin receptor substrate 2 D06 Hs.656213 NM_004972 JAK2 Janus kinase 2 D07 Hs.194236 NM_000200 LEP Leptin D08 Hs.705413 NM_002303 LEP Leptin D08 Hs.705413 NM_002303 LEP Leptin D08 Hs.705413 NM_002303 LEP Lipase, hormone-sensitive D10 Hs.180878 NM_00237 LPL Lipose, hormone-sensitive D10 Hs.184242 NM_002755 MAP2K1 Mitogen-activated protein kinase kinase 1 E01 Hs.145442 NM_002755 MAPX3 Mitogen-activated protein kinase 3 E02 Hs.484371 NM_002752 MAPK3 Mitogen-activated protein kinase 9 E03 Hs.38207 NM_04958 MTOR Mechanistic target of rapamycin (serine/threonine kinase) </td <td>D02</td> <td>Hs.624</td> <td>NM 000584</td> <td>IL8</td> <td>Interleukin 8</td>	D02	Hs.624	NM 000584	IL8	Interleukin 8
D04 Hs.471508 NM_005544 IRS1 Insulin receptor substrate 1 D05 Hs.442344 NM_003749 IRS2 Insulin receptor substrate 2 D06 Hs.656213 NM_004972 JAK2 Janus kinase 2 D07 Hs.194236 NM_000200 LEP Leptin D08 Hs.705413 NM_002303 LEP Leptin D09 Hs.656980 NM_00237 LIPE Lipase, hormone-sensitive D10 Hs.180878 NM_00237 LPL Lipoprotein lipase D11 Hs.524648 NM_0002755 MAP2K1 Mitogen-activated protein kinase kinase 1 E01 Hs.145442 NM_002755 MAPK3 Mitogen-activated protein kinase 3 E02 Hs.484371 NM_002752 MAPK9 Mitogen-activated protein kinase 9 E03 Hs.81328 NM_0205746 NAMPT Nicotinamide phosphoribosyltransferase E04 Hs.489615 NM_020529 NFKBIA Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha E05 Hs.81328 NM_020529<	D03	Hs.465744	NM 000208	INSR	Insulin receptor
D05 Hs.442344 NM_003749 IRS2 Insulin receptor substrate 2 D06 Hs.656213 NM_004972 JAK2 Janus kinase 2 D07 Hs.194236 NM_000230 LEP Leptin D08 Hs.705413 NM_002303 LEP Leptin D09 Hs.656980 NM_00237 LIPE Lipase, hormone-sensitive D09 Hs.656980 NM_000237 LPL Lipoprotein lipase D11 Hs.524648 NM_002755 MAP2K1 Mitogen-activated protein kinase kinase 1 E01 Hs.145442 NM_002755 MAPK3 Mitogen-activated protein kinase 3 E01 Hs.84371 NM_002746 MAPK3 Mitogen-activated protein kinase 9 E03 Hs.484371 NM_002752 MAPK9 Mitogen-activated protein kinase 9 E04 Hs.489615 NM_0027546 NAMPK9 Mitogen-activated protein kinase 9 E03 Hs.3128 NM_020529 NFKBIA Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha E04 Hs.181328 NM_0205	D04	Hs.471508	NM 005544	IRS1	Insulin receptor substrate 1
D06 Hs.656213 NM_004972 JAK2 Janus kinase 2 D07 Hs.194236 NM_000230 LEP Leptin D08 Hs.705413 NM_002303 LEP Leptin D09 Hs.656980 NM_002307 LPR Leptin receptor D09 Hs.656980 NM_00237 LPL Lipose, hormone-sensitive D10 Hs.180878 NM_000237 LPL Lipoprotein lipase D11 Hs.524648 NM_002755 MAP2K1 Mitogen-activated protein kinase kinase 1 E01 Hs.145442 NM_002755 MAPK3 Mitogen-activated protein kinase 3 E02 Hs.484371 NM_002752 MAPK9 Mitogen-activated protein kinase 9 E03 Hs.38207 NM_004958 MTOR Mechanistic target of rapamycin (serine/threonine kinase) E04 Hs.489615 NM_02529 NFKBIA Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha E06 Hs.192483 NM_1833955 NLR93 NLR family, pyrin domain containing 3 E07 Hs.412484 <	D05	Hs.442344	NM 003749	IRS2	Insulin receptor substrate 2
D07 Hs.194236 NM_000230 LEP Leptin D08 Hs.705413 NM_002303 LEPR Leptin receptor D09 Hs.656980 NM_005357 LIPE Lipase, hormone-sensitive D10 Hs.180878 NM_000237 LPL Lipoprotein lipase D11 Hs.524648 NM_000895 LTA4H Leukotriene A4 hydrolase D12 Hs.145442 NM_002755 MAP2K1 Mitogen-activated protein kinase kinase 1 E01 Hs.861 NM_002752 MAPK3 Mitogen-activated protein kinase 9 E02 Hs.484371 NM_002752 MAPK9 Mitogen-activated protein kinase 9 E03 Hs.338207 NM_002752 MAPK9 Mitogen-activated protein kinase 9 E04 Hs.489615 NM_005746 NAMPT Nicotinamide phosphoribosyltransferase E05 Hs.81328 NM_020529 NFKBIA Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha E06 Hs.159483 NM_1183395 NLRP3 NLR family, pyrin domain containing 3 E07	D06	Hs.656213	NM 004972	JAK2	Janus kinase 2
D08 Hs.705413 NM_002303 LEPR Leptin receptor D09 Hs.656980 NM_005357 LIPE Lipase, hormone-sensitive D10 Hs.180878 NM_000237 LPL Lipoprotein lipase D11 Hs.524648 NM_000895 LTA4H Leukotriene A4 hydrolase D12 Hs.145442 NM_002755 MAP2K1 Mitogen-activated protein kinase kinase 1 E01 Hs.861 NM_002752 MAPK3 Mitogen-activated protein kinase 9 E03 Hs.338207 NM_002752 MAPK9 Mitogen-activated protein kinase 9 E04 Hs.489615 NM_005746 NAMPT Nicotinamide phosphoribosyltransferase E05 Hs.81328 NM_020529 NFKBIA Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha E06 Hs.159483 NM_183395 NLRP3 NLR family, pyrin domain containing 3 E07 Hs.412484 NM_002543 OLR1 Oxidized low density lipoprotein (lectin-like) receptor 1 E08 Hs.1872 NM 002591 PCK1 Phosphoenolopyruyate carboxykinase 1 (solubl	D07	Hs.194236	NM 000230	LEP	Leptin
D09 Hs.656980 NM_005357 LIPE Lipase, hormone-sensitive D10 Hs.180878 NM_000237 LPL Lipoprotein lipase D11 Hs.524648 NM_000275 LTA4H Leukotriene A4 hydrolase D12 Hs.145442 NM_002755 MAP2K1 Mitogen-activated protein kinase kinase 1 E01 Hs.861 NM_002752 MAPK3 Mitogen-activated protein kinase 3 E02 Hs.484371 NM_002752 MAPK9 Mitogen-activated protein kinase 9 E03 Hs.338207 NM_004752 MAPK9 Mitogen-activated protein kinase 9 E04 Hs.484915 NM_005746 NAMPT Nicotinamide phosphoribosyltransferase E05 Hs.81328 NM_020529 NFKBIA Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha E06 Hs.159483 NM_183395 NLRP3 NLR family, pyrin domain containing 3 E07 Hs.412484 NM_002543 OLR1 Oxidized low density lipoprotein (lectin-like) receptor 1 E08 Hs.1872 NM 002591 PCK1 Phosphoenologruvate carb	D08	Hs.705413	NM 002303	LEPR	Leptin receptor
D10 Hs.180878 NM_000237 LPL Lipoprotein lipase D11 Hs.524648 NM_000895 LTA4H Leukotriene A4 hydrolase D12 Hs.145442 NM_002755 MAP2K1 Mitogen-activated protein kinase kinase 1 E01 Hs.861 NM_002755 MAP2K1 Mitogen-activated protein kinase 3 E01 Hs.484371 NM_002752 MAPK3 Mitogen-activated protein kinase 9 E03 Hs.38207 NM_004958 MTOR Mechanistic target of rapamycin (serine/threonine kinase) E04 Hs.489615 NM_005746 NAMPT Nicotinamide phosphoribosyltransferase E05 Hs.81328 NM_020529 NFKBIA Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha E06 Hs.159483 NM_183395 NLRP3 NLR family, pyrin domain containing 3 E07 Hs.412484 NM_002543 OLR1 Oxidized low density lipoprotein (lectin-like) receptor 1 E08 Hs.1872 NM 002591 PCK1 Phosphoenolopyruvate carboxykinase 1 (soluble)	D09	Hs.656980	NM 005357	LIPE	Lipase, hormone-sensitive
D11 Hs.524648 NM_000895 LTA4H Leukotriene A4 hydrolase D12 Hs.145442 NM_002755 MAP2K1 Mitogen-activated protein kinase kinase 1 E01 Hs.861 NM_002746 MAPK3 Mitogen-activated protein kinase 3 E02 Hs.484371 NM_002752 MAPK9 Mitogen-activated protein kinase 9 E03 Hs.38207 NM_004958 MTOR Mechanistic target of rapamycin (serine/threonine kinase) E04 Hs.489615 NM_005746 NAMPT Nicotinamide phosphoribosyltransferase E05 Hs.81328 NM_02529 NFKBIA Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha E06 Hs.159483 NM_183395 NLR93 NLR family, pyrin domain containing 3 E07 Hs.412484 NM_002543 OLR1 Oxidized low density lipoprotein (lectin-like) receptor 1 E08 Hs.1872 NM<002543	D10	Hs.180878	NM 000237	LPL	Lipoprotein lipase
D12 Hs.145442 NM_002755 MAP2K1 Mitogen-activated protein kinase kinase 1 E01 Hs.861 NM_002755 MAP2K1 Mitogen-activated protein kinase kinase 1 E01 Hs.861 NM_002752 MAPK3 Mitogen-activated protein kinase kinase 3 E02 Hs.484371 NM_002752 MAPK9 Mitogen-activated protein kinase 9 E03 Hs.338207 NM_004958 MTOR Mechanistic target of rapamycin (serine/threonine kinase) E04 Hs.489615 NM_005746 NAMPT Nicotinamide phosphoribosyltransferase E05 Hs.81328 NM_020529 NFKBIA Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha E06 Hs.159483 NM_183395 NLRP3 NLR family, pyrin domain containing 3 E07 Hs.412484 NM_002543 OLR1 Oxidized low density lipoprotein (lectin-like) receptor 1 E08 Hs.1872 NM 002591 PCK1 Phosphoenolpyruvate carboxykinase 1 (soluble)	D11	Hs.524648	NM 000895	LTA4H	Leukotriene A4 hydrolase
E01 Hs.861 NM_002746 MAPK3 Mitogen-activated protein kinase 3 E02 Hs.484371 NM_002752 MAPK9 Mitogen-activated protein kinase 9 E03 Hs.338207 NM_004958 MTOR Mechanistic target of rapamycin (serine/threonine kinase) E04 Hs.489615 NM_005746 NAMPT Nicotinamide phosphoribosyltransferase E05 Hs.81328 NM_020529 NFKBIA Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha E06 Hs.159483 NM_183395 NLRP3 NLR family, pyrin domain containing 3 E07 Hs.412484 NM_002543 OLR1 Oxidized low density lipoprotein (lectin-like) receptor 1 E08 Hs.1872 NM 002591 PCK1 Phosphoenolopyruvate carboxykinase 1 (soluble)	D12	Hs.145442	NM 002755	MAP2K1	Mitogen-activated protein kingse kingse 1
E02 Hs.484371 NM_002752 MAPK9 Mitogen-activated protein kinase 9 E03 Hs.338207 NM_004958 MTOR Mechanistic target of rapamycin (serine/threonine kinase) E04 Hs.489615 NM_005746 NAMPT Nicotinamide phosphoribosyltransferase E05 Hs.81328 NM_020529 NFKBIA Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha E06 Hs.159483 NM_1183395 NLRP3 NLR family, pyrin domain containing 3 E07 Hs.412484 NM_002543 OLR1 Oxidized low density lipoprotein (lectin-like) receptor 1 E08 Hs.1872 NM 002591 PCK1 Phosphoenolopyruvate carboxykinase 1 (soluble)	E01	Hs.861	NM 002746	MAPK3	Mitogen-activated protein kingse 3
E03 Hs.338207 NM_004958 MTOR Mechanistic target of rapamycin (serine/threonine kinase) E04 Hs.489615 NM_005746 NAMPT Nicotinamide phosphoribosyltransferase E05 Hs.81328 NM_020529 NFKBIA Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha E06 Hs.159483 NM_183395 NLRP3 NLR family, pyrin domain containing 3 E07 Hs.412484 NM_002543 OLR1 Oxidized low density lipoprotein (lectin-like) receptor 1 E08 Hs.1872 NM<002591	E02	Hs.484371	NM 002752	MAPK9	Mitogen-activated protein kinase 9
E04 Hs.489615 NM_005746 NAMPT Nicotinamide phosphoribosyltransferase E05 Hs.81328 NM_020529 NFKBIA Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha E06 Hs.159483 NM_183395 NLRP3 NLR family, pyrin domain containing 3 E07 Hs.412484 NM_002543 OLR1 Oxidized low density lipoprotein (lectin-like) receptor 1 E08 Hs.1872 NM<002591	E03	Hs.338207	 NM 004958	MTOR	Mechanistic target of rapamycin (serine/threonine kingse)
E05 Hs.81328 NM_020529 NFKBIA Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha E06 Hs.159483 NM_183395 NLRP3 NLR family, pyrin domain containing 3 E07 Hs.412484 NM_002543 OLR1 Oxidized low density lipoprotein (lectin-like) receptor 1 E08 Hs.1872 NM 002591 PCK1 Phosphoenolpyruvate carboxykinase 1 (soluble)	E04	Hs.489615	NM 005746	NAMPT	Nicotinamide phosphoribosyltransferase
E05 Hs.81328 NM_020529 NFKBIA alpha E06 Hs.159483 NM_183395 NLRP3 NLR family, pyrind domain containing 3 E07 Hs.412484 NM_002543 OLR1 Oxidized low density lipoprotein (lectin-like) receptor 1 E08 Hs.1872 NM 002591 PCK1 Phosphoenolpyruvate carboxykinase 1 (soluble)					Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor.
E06 Hs.159483 NM_183395 NLRP3 NLR family, pyrin domain containing 3 E07 Hs.412484 NM_002543 OLR1 Oxidized low density lipoprotein (lectin-like) receptor 1 E08 Hs.1872 NM 002591 PCK1 Phosphoenolpyruvate carboxykinase 1 (soluble)	E05	Hs.81328	NM_020529	NFKBIA	alpha
E07 Hs.412484 NM_002543 OLR1 Oxidized low density lipoprotein (lectin-like) receptor 1 E08 Hs.1872 NM_002591 PCK1 Phosphoenolpyruvate carboxykinase I (soluble)	E06	Hs.159483	NM 183395	NLRP3	NLR family, pyrin domain containing 3
E08 Hs.1872 NM 002591 PCK1 Phosphoenolpyruvate carboxkinase 1 (soluble)	E07	Hs.412484	NM 002543	OLR1	Oxidized low density lipoprotein (lectin-like) receptor 1
	E08	Hs.1872	NM 002591	PCK1	Phosphoenolpyruvate carboxykinase 1 (soluble)

Position	UniGene	GenBank	Symbol	Description	
E09	Hs.445711	NM_000922	PDE3B	Phosphodiesterase 3B, cGMP-inhibited	
E10	Hs.256667	NM_002611	PDK2	Pyruvate dehydrogenase kinase, isozyme 2	
E11	Hs.32938	NM_000209	PDX1	Pancreatic and duodenal homeobox 1	
E12	Hs.553498	NM_006218	PIK3CA	Phosphoinositide-3-kinase, catalytic, alpha polypeptide	
F01	Hs.132225	NM_181504	PIK3R1	Phosphoinositide-3-kinase, regulatory subunit 1 (alpha)	
F02	Hs.103110	NM_005036	PPARA	Peroxisome proliferator-activated receptor alpha	
F03	Hs.162646	NM_015869	PPARG	Peroxisome proliferator-activated receptor gamma	
F04	Hs.527078	NM_013261	PPARGC1A	Peroxisome proliferator-activated receptor gamma, coactivator 1 alpha	
F05	Hs.417549	NM_002827	PTPN1	Protein tyrosine phosphatase, non-receptor type 1	
F06	Hs.499094	NM_013258	PYCARD	PYD and CARD domain containing	
F07	Hs.50223	NM_006744	RBP4	Retinol binding protein 4, plasma	
F08	Hs.502875	NM_021975	RELA	V-rel reticuloendotheliosis viral oncogene homolog A (avian)	
F09	Hs.283091	NM_020415	RETN	Resistin	
F10	Hs.463642	NM_003161	RPS6KB1	Ribosomal protein S6 kinase, 70kDa, polypeptide 1	
F11	Hs.558396	NM_005063	SCD	Arylacetamide deacetylase	
F12	Hs.414795	NM_000602	SERPINE1	Serpin peptidase inhibitor, clade E (nexin, plasminogen activator inhibitor type	
C01	11.0(0100	-	0.00743	I), member I	
GOT	Hs.363138	NM_198580	SLC2/AT	Solute carrier family 27 (fatty acid transporter), member 1	
G02	Hs.380691	NM_001042	SLC2A4	Solute carrier family 2 (facilitated glucose fransporter), member 4	
G03	Hs.52/9/3	NM_003955	SOCS3	Suppressor of cytokine signaling 3	
G04	Hs.592123	NM_004176	SREBFI	Sterol regulatory element binding transcription factor 1	
G05	Hs.443258	NM_004599	SREBF2	Sterol regulatory element binding transcription factor 2	
G06	Hs.463059	NM_003150	SIAI3	Signal transducer and activator of transcription 3 (acute-phase response factor)	
G07	Hs.1/4312	NM_138554	ILR4	I oll-like receptor 4	
G08	Hs.2415/0	NM_000594	INF	I umor necrosis factor	
G09	Hs.2/9594	NM_001065	INFRSFIA	Iumor necrosis factor receptor supertamily, member IA	
GIO	Hs.2562/8	NM_001066	INFRSFIB	Iumor necrosis factor receptor supertamily, member IB	
GII	Hs.249211	NM_021833	UCPT	Uncoupling protein I (mitochondrial, proton carrier)	
GI2	Hs.370422	NM_003383	VLDLR	Very low density lipoprotein receptor	
H01	Hs.520640	NM_001101	ACIB	Actin, beta	
H02	Hs.534255	NM_004048	B2M	Beta-2-microglobulin	
H03	Hs.592355	NM_002046	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase	
H04	Hs.412707	NM_000194	HPRT1	Hypoxanthine phosphoribosyltransterase 1	
H05	Hs.546285	NM_001002	RPLPO	Ribosomal protein, large, PO	
H06	N/A	SA_00105	HGDC	Human Genomic DNA Contamination	
H07	N/A	SA_00104	RTC	Reverse Transcription Control	
H08	N/A	SA_00104	RTC	Reverse Transcription Control	
H09	N/A	SA_00104	RTC	Reverse Transcription Control	
H10	N/A	SA_00103	PPC	Positive PCR Control	
H11	N/A	SA_00103	PPC	Positive PCR Control	
H12	N/A	SA 00103	PPC	Positive PCR Control	

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