RT² Profiler PCR Array (Rotor-Gene® Format) Human Cancer Inflammation & Immunity Cat. no. 330231 PAHS-181ZR

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 Cancer Inflammation & Immunity Crosstalk RT² Profiler PCR Array profiles the expression of 84 key genes involved in mediating communication between tumor cells and the cellular mediators of inflammation and immunity. In addition to epithelial and stromal compartments, the tumor microenvironment contains several cell types of the innate and adaptive immune systems including B and T lymphocytes, dendritic cells, and macrophages. In response to tumor-associated antigens presented via MHC Class I molecules, or to abnormal molecular patterns recognized by Toll-like receptors, the immune system eliminates target cells using a variety of effector enzymes and the engagement of pro-apoptotic signals including TRAIL and FAS ligand. If normal homeostasis is not resolved quickly, a state of chronic inflammation can ensue, including locally increased levels of reactive oxygen and nitrogen species that promote genomic instability. Immune cells produce a variety of cytokines that coordinate the inflammatory response, which is fueled by positive feedback loops commonly involving the STAT and NF κB signaling pathways in tumor cells. The resulting upregulation of antiapoptotic and immunosuppressive factors enables transformed cells to proliferate unchecked by the immune system. During cancer progression, the repertoire of chemokines, cytokines, and arowth factors that orchestrates normal immune responses can be commandeered to create an immunosuppressive state that facilitates invasion and metastasis. The genes profiled with this array include mediators and effectors of the cross-talk between tumors and the immune system that influences the course of cancer progression. A set of controls present on each array enables data analysis using the $\Delta\Delta$ CT method of relative quantification as well as assessment of reverse transcription performance, genomic DNA contamination, and PCR performance. Using real-time PCR, researchers can easily and reliably analyze the expression of a focused panel of genes involved in cancer

inflammation and immune crosstalk 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.471731 NM 02061 ACRA Chemokine [C-X:C metif) reseptor 7 A02 Hs.19342 NM 000633 BCL2 Bicell CL/Jmphone 2 A03 Hs.19749 NM 000633 BCL21 Bicell CL/Jmphone 2 A04 Hs.14941 NM 000298 CCL1 BCL2/Like 1 A05 Hs.149491 NM 002998 CCL2 Chemokine [C-C motif] Igond 12 A06 Hs.30449 NM 002999 CCL2 Chemokine [C-C motif] Igond 22 A07 Hs.57407 NM 002990 CCL2 Chemokine [C-C motif] Igond 22 A10 Hs.574347 NM 002989 CCL3 Chemokine [C-C motif] Igond 23 A11 Hs.57907 NM 002984 CCL4 Chemokine [C-C motif] Igond 4 A12 Hs.51421 NM 002985 CCS1 Chemokine [C-C motif] Igond 14 A12 Hs.51421 NM 001725 CCS1 Chemokine [C-C motif] Igond 14 B03 Hs.21921 NM 01602 CCR1 Chemokine [C-C motif] Igond 17 B04 Hs.21990 NM 016026 CCR1 Chemoki	Position	UniGene	GenBank	Symbol	Description
A02 Hs.149342 NM.020661 ACDA Activation-induced optime demination A03 Hs.51049 NM.000633 BCL2 Biol CL2-like 1 A04 Hs.51049 NM.002988 CCL18 Chemokine [C-C moth] Igond 12 A05 Hs.30449 NM.002982 CCL2 Chemokine [C-C moth] Igond 21 A07 Hs.57498 NM.002989 CCL20 Chemokine [C-C moth] Igond 21 A08 Hs.57497 NM.002989 CCL21 Chemokine [C-C moth] Igond 21 A10 Hs.53437 NM.002984 CCL2 Chemokine [C-C moth] Igond 23 A11 Hs.53437 NM.002985 CCL5 Chemokine [C-C moth] Igond 4 A12 Hs.514821 NM.002985 CCL5 Chemokine [C-C moth] Igond 4 A12 Hs.514821 NM.0113376 CCR4 Chemokine [C-C moth] Igond 7 B03 Hs.270330 NM.001338 CCR4 Chemokine [C-C moth] Igond 7 B04 Hs.270490 NM.00358 CSF2 Colony stimulating factor 1 (mocrophage) B05 Hs.2723940 NM.000578	A01	Hs.471751	NM_020311	ACKR3	Chemokine (C-X-C motif) receptor 7
A03 Hs.150749 NM, 00033 BCL21 Bscl211 BCL21ke 1 A04 Hs.14961 NM, 002988 CCL1 Chemokine (C-C motif) lignal 12 A05 Hs.14961 NM, 002989 CCL2 Chemokine (C-C motif) lignal 21 A07 Hs.25484 NM, 002990 CCL2 Chemokine (C-C motif) lignal 21 A08 Hs.57907 NM, 002990 CCL2 Chemokine (C-C motif) lignal 22 A10 Hs.564904 NM, 148672 CCL2 Chemokine (C-C motif) lignal 4 A11 Hs.514821 NM, 002986 CCL4 Chemokine (C-C motif) lignal 4 A12 Hs.514821 NM, 001295 CCL2 Chemokine (C-C motif) lignal 4 A12 Hs.514821 NM, 001295 CCR1 Chemokine (C-C motif) lignal 4 B01 Hs.514821 NM, 001295 CCR2 Chemokine (C-C motif) lignal 4 B02 Hs.75320 NM, 0012356 CCR2 Chemokine (C-C motif) lignal 1 B03 Hs.75324 NM, 001338 CCR2 Chemokine (C-C motif) lignal 1 B04 Hs.184926	A02	Hs.149342	NM 020661	AICDA	Activation-induced cytidine deaminase
A04 Hs.19496 N.M. 138578 BCL211 BCL2.He BCL2.He A05 Hs.13940 N.M. 002988 CCL18 Chemokine (C-C motif) ligand 12 A08 Hs.5707 N.M. 002988 CCL20 Chemokine (C-C motif) ligand 12 A08 Hs.5707 N.M. 002988 CCL21 Chemokine (C-C motif) ligand 12 A10 Hs.65404 N.M. 002986 CCL22 Chemokine (C-C motif) ligand 4 A11 Hs.5707 N.M. 002986 CCL4 Chemokine (C-C motif) ligand 4 A12 Hs.514821 N.M. 002985 CCR1 Chemokine (C-C motif) ligand 4 A11 Hs.5703 N.M. 002985 CCR1 Chemokine (C-C motif) ligand 4 B02 Hs.74542 N.M. 001536 CCR1 Chemokine (C-C motif) ligand 18 B03 Hs.134976 N.M. 001538 CCR4 Chemokine (C-C motif) ligand 18 B04 Hs.134976 N.M. 001538 CCR4 Chemokine (C-C motif) ligand 18 B05 Hs.27396 N.M. 001538 CCSF1 Colony simulating dicator 1 (macrophag) B06 <td< td=""><td>A03</td><td>Hs.150749</td><td>NM 000633</td><td>BCL2</td><td>B-cell CLL/lymphoma 2</td></td<>	A03	Hs.150749	NM 000633	BCL2	B-cell CLL/lymphoma 2
A05 Hs 14.99.1 NM 002988 CCL18 Chemokine [C-C motif] ligand and culotition-regulated] A07 Hs.303649 NM 004991 CCL20 Chemokine [C-C motif] ligand 20 A08 Hs.530647 NM 002980 CCL21 Chemokine [C-C motif] ligand 21 A09 Hs.36449 NM 002980 CCL22 Chemokine [C-C motif] ligand 4 A10 Hs.656904 NM 02985 CCL4 Chemokine [C-C motif] ligand 4 A11 Hs.51703 NM 002985 CCL5 Chemokine [C-C motif] ligand 4 A12 Hs.31921 NM 002985 CCR1 Chemokine [C-C motif] receptor 1 B01 Hs.319921 NM 001295 CCR1 Chemokine [C-C motif] receptor 1 B03 Hs.703342 NM 001295 CCR2 Chemokine [C-C motif] receptor 4 B03 Hs.370364 NM 001283 CCR2 Chemokine [C-C motif] receptor 4 B04 Hs.132904 NM 000757 CSF1 Colony stimulating factor 1 (mocnophage) B07 Hs.21989 NM 000757 CSF1 Colony stimulating factor 3 (granuccyte-macophage)	A04	Hs.516966	NM 138578	BCL2L1	BCL2-like 1
A06 Hs.303649 NM.002982 CCL2 Chemokine (C-C motil ligand 2) A07 Hts.75498 NM.002989 CCL21 Chemokine (C-C motil ligand 2) A08 Hts.5307 NM.002989 CCL21 Chemokine (C-C motil ligand 2) A09 Hts.534347 NM.002989 CCL22 Chemokine (C-C motil ligand 4) A10 Hts.65904 NM.002984 CCL4 Chemokine (C-C motil ligand 4) A112 Hts.131871 NM.002985 CCR10 Chemokine (C-C motil ligand 4) B01 Hts.31921 NM.00295 CCR10 Chemokine (C-C motil receptor 1) B03 Hts.74542 NM.001123376 CCR2 Chemokine (C-C motil receptor 2) B04 Hts.139204 NM.001123376 CCR2 Chemokine (C-C motil receptor 2) B04 Hts.139204 NM.001143 CCR2 Chemokine (C-C motil receptor 2) B05 Hts.32940 NM.001143 CCR2 Chemokine (C-C motil receptor 2) B06 Hts.32940 NM.00158 CCR1 CCHemokine (C-C-C motil receptor 2) B07 Hts.13	A05	Hs.143961	NM 002988	CCL18	Chemokine (C-C motif) ligand 18 (pulmonary and activation-regulated)
A07 Hs.73498 NM. 004591 CCL20 Chemokine (C- motif) ligond 20 A08 Hs.53007 NM. 002990 CCL21 Chemokine (C- motif) ligond 42 A10 Hs.63694 NM. 148572 CCL28 Chemokine (C- motif) ligond 4 A11 Hs.5703 NM. 002985 CCL4 Chemokine (C- motif) ligond 5 B01 Hs.31921 NM. 002985 CCR1 Chemokine (C- motif) receptor 1 B02 Hs.74542 NM. 001253 CCR1 Chemokine (C- motif) receptor 1 B03 Hs.75032 NM. 001233 CCR2 Chemokine (C- motif) receptor 4 B04 Hs.184920 NM. 0050508 CCR2 Chemokine (C- motif) receptor 7 B06 Hs.27984 NM. 000757 CSF1 Colony stimulating factor 1 (macrophage) B07 Hs.23189 NM. 000756 CSF2 Colony stimulating factor 1 (macrophage) B10 Hs.2334 NM.000756 CSF2 Colony stimulating factor 3 (granulocyte) B11 Hs.2344 NM.000756 CSF2 Colony stimulating factor3 (granulocyte) B11	A06	Hs.303649	NM 002982	CCL2	Chemokine (C-C motif) ligand 2
A08 Hs.5797 NM.00298 CCL21 Chemokine [C- multi] ligond 21 A10 Hs.53447 NM.00298 CCL22 Chemokine [C- multi] ligond 23 A11 Hs.53447 NM.02984 CCL4 Chemokine [C- multi] ligond 4 A12 Hs.514451 NM.02984 CCL4 Chemokine [C- multi] ligond 4 A12 Hs.514451 NM.00298 CCL5 Chemokine [C- multi] receptor 1 B01 Hs.214541 NM.001295 CCR1 Chemokine [C- multi] receptor 1 B03 Hs.705302 NM.001333 CCR2 Chemokine [C- multi] receptor 4 B04 Hs.17894 NM.001413 CC274 CD274 molecule B06 Hs.229840 NM.00158 CSF1 Colony simulating factor 3 (granulocyte) B11 Hs.22384 NM.000758 CSF2 Colony simulating factor 3 (granulocyte) B11 Hs.22384 NM.0005911 CXL11 Chemokine (C-X- multi] ligand 10 C03 Hs.32481 NM.000506 CXL10 Chemokine (C-X- multi] ligand 11 C04 Hs.322891 NM.000	A07	Hs.75498	NM 004591	CCL20	Chemokine (C-C motif) ligand 20
A09 Hs.53447 NM.002990 CC.122 Chemokine [C-C moff] ligand 12 A10 Hs.656904 NM.14672 CCL28 Chemokine [C-C moff] ligand 28 A11 Hs.514821 NM.002984 CCL4 Chemokine [C-C moff] ligand 12 A12 Hs.514821 NM.002985 CCL5 Chemokine [C-C moff] ligand 12 B01 Hs.301921 NM.00112330 CCR1 Chemokine [C-C moff] receptor 1 B02 Hs.744542 NM.0011830 CCR2 Chemokine [C-C moff] receptor 2 B04 Hs.184926 NM.001838 CCR7 Chemokine [C-C moff] receptor 7 B05 Hs.30036 NM.001838 CCR7 Chemokine [C-C moff] receptor 7 B06 Hs.22189 NM.001414 CD27 Colory stimulating factor 1 (macrophage) B07 Hs.231894 NM.000757 CSF1 Colory stimulating factor 1 (macrophage) B10 Hs.2234 NM.000758 CSF2 Colory stimulating factor 1 (macrophage) B11 Hs.2244 NM.000755 CSF2 Colory stimulating factor 1 (macrophage) B11	A08	Hs.57907	NM 002989	CCL21	Chemokine (C-C motif) ligand 21
A10 Hs.656904 NM_14672 CCL28 Chemokine [C-C motif] ligand 28 A11 Hs.75703 NM_002985 CCL4 Chemokine [C-C motif] ligand 4 A12 Hs.514821 NM_002985 CCL5 Chemokine [C-C motif] ligand 5 B01 Hs.314921 NM_001295 CCR1 Chemokine [C-C motif] receptor 10 B03 Hs.744542 NM_001338 CCR2 Chemokine [C-C motif] receptor 4 B04 Hs.184926 NM_001388 CCR7 Chemokine [C-C motif] receptor 9 B05 Hs.370036 NM_001388 CC87 Chemokine [C-C motif] receptor 9 B06 Hs.127844 NM_000577 CS71 Colony stimulating factor 1 (promologite encrophage) B07 Hs.237894 NM_000579 CS73 Colony stimulating factor 2 (granulocyte) B10 Hs.247824 NM_000579 CS73 Colony stimulating factor 2 (granulocyte) B10 Hs.247824 NM_00551 CXCL1 Chemokine (C-X-C motif) ligand 10 C01 Hs.632868 NM_00559 CXCL1 Chemokine (C-X-C motif) ligand 12	A09	Hs.534347	NM 002990	CCL22	Chemokine (C-C motif) ligand 22
A11 Hs. 7503 NM. 002984 CCL4 Chemokine (C-C motif) ligand 4 A12 Hs. 514821 NM. 002985 CCL5 Chemokine (C-C motif) ligand 5 B01 Hs.201921 NM. 00173350 CCR1 Chemokine (C-C motif) receptor 1 B02 Hs.74442 NM. 00173350 CCR2 Chemokine (C-C motif) receptor 2 B04 Hs.12422 NM. 00173350 CCR2 Chemokine (C-C motif) receptor 1 B05 Hs.30036 NM. 001833 CCR7 Chemokine (C-C motif) receptor 7 B06 Hs.227946 NM. 004641 CCR9 Chemokine (C-C motif) receptor 7 B07 Hs.21998 NM. 000757 CSF1 Colony stimulating factor 1 (mencephage) B08 Hs.127894 NM.000759 CSF3 Colony stimulating factor 2 (granulocyte) B10 Hs.247824 NM.000750 CSF3 Colony stimulating factor 3 (granulocyte) B11 Hs.247824 NM.000750 CSF3 Colony stimulating factor 3 (granulocyte) C01 Hs.632592 NM.0001055 CXC10 Chemokine (C-X-C motif) liggand 11 <tr< td=""><td>A10</td><td>Hs.656904</td><td> NM 148672</td><td>CCL28</td><td>Chemokine (C-C motif) ligand 28</td></tr<>	A10	Hs.656904	 NM 148672	CCL28	Chemokine (C-C motif) ligand 28
A12 Hs.514821 NM.002985 CCL5 Chemokine [C-C motif] igand 5 B01 Hs.301921 NM.010602 CCR1 Chemokine [C-C motif] receptor 10 B02 Hs.744542 NM.0013396 CCR2 Chemokine [C-C motif] receptor 10 B03 Hs.705562 NM.001338 CCR2 Chemokine [C-C motif] receptor 4 B04 Hs.149226 NM.001388 CCR7 Chemokine [C-C motif] receptor 7 B05 Hs.370036 NM.001388 CCR7 Chemokine [C-C motif] receptor 9 B06 Hs.12989 NM.000758 CSF2 Colony stimulating factor 1 (macrophage) B08 Hs.173894 NM.000759 CSF3 Colony stimulating factor 2 (granulocyte-macrophage) B01 Hs.247824 NM.000551 CXCL1 Chemokine (C-X-C motif) iggran1 (melanoma granulating factor 1 (macrophage) B11 Hs.247824 NM.000551 CXCL1 Chemokine (C-X-C motif) ligand 10 C03 Hs.322891 NM.000509 CXCL1 Chemokine (C-X-C motif) ligand 10 C04 Hs.72765 NM.000599 CXCL1 Chemokine (C-X-C motif) l	A11	Hs.75703	 NM 002984	CCL4	Chemokine (C-C motif) ligand 4
B01 Hs.301921 NM. 001295 CCR1 Chemokine (C-C motif) receptor 1 B02 Hs.744542 NM. 01602 CCR10 Chemokine (C-C motif) receptor 10 B03 Hs.184705362 NM.0013396 CCR2 Chemokine (C-C motif) receptor 2 B04 Hs.184705 NM.005508 CCR4 Chemokine (C-C motif) receptor 4 B05 Hs.270936 NM.00133 CCR7 Chemokine (C-C motif) receptor 7 B06 Hs.273974 NM.014143 CD274 CD274 molecule B07 Hs.521989 NM.014143 CD274 CD274 molecule B08 Hs.173894 NM.00756 CSF1 Colony stimulating factor 1 (macrophage) B10 Hs.2238 NM.00571 CSF1 Colony stimulating factor 3 (grounlocyte) B10 Hs.23092 NM.00511 CXL1 Chemokine (C-X-C motif) [ligand 11 C01 Hs.632528 NM.005214 CTL4 Cytotoxic T-ymphoste-sociacted protein 4 B12 Hs.23765 NM.002089 CXCL10 Chemokine (C-X-C motif) [ligand 10 C02 Hs.632529	A12	Hs.514821	NM 002985	CCL5	Chemokine (C-C motif) ligand 5
B02 Hs 74842 NM_001602 CCR1 Chemokine [C-C motif] receptor 10 B03 Hs.705362 NM_001123396 CCR2 Chemokine [C-C motif] receptor 2 B04 Hs.184726 NM_001838 CCR4 Chemokine [C-C motif] receptor 4 B05 Hs.370036 NM_0061138 CCR7 Chemokine [C-C motif] receptor 7 B06 Hs.25946 NM_0061143 CD274 CD274 CD274 B07 Hs.51999 NM_01143 CD274 Colony stimulating factor 1 (macrophage) B08 Hs.173894 NM_000757 CSF1 Colony stimulating factor 1 (macrophage) B10 Hs.247824 NM_00578 CSF2 Colony stimulating factor 1 (macrophage) B11 Hs.247824 NM_00551 CXCL1 Chemokine (C-X-C motif) ligand 10 C01 Hs.632592 NM_005409 CXCL1 Chemokine (C-X-C motif) ligand 11 C03 Hs.57875 NM_000060 CXCL12 Chemokine (C-X-C motif) ligand 11 C04 Hs.77877 NM_00246 CXCR1 Chemokine (C-X-C motif) ligand 12 C05	B01	Hs.301921	NM 001295	CCR1	Chemokine (C-C motif) receptor 1
B03 Hs 703342 NM_00173396 CCR2 Chemokine [C-C motif) receptor 2 B04 Hs 184926 NM_005508 CCR4 Chemokine [C-C motif) receptor 7 B05 Hs 27036 NM_001838 CCR7 Chemokine [C-C motif) receptor 7 B06 Hs 27038 NM_001413 CD274 CD274 molecule B07 Hs 231989 NM_000757 CSF1 Colony stimulating factor 2 (granulocyte-macrophage) B09 Hs 1349 NM_000759 CSF2 Colony stimulating factor 3 (granulocyte) B10 Hs 2233 NM_000759 CSF3 Colony stimulating factor 3 (granulocyte) B11 Hs 27824 NM_00155 CSC10 Chemokine (C-X-C motif) (grand 10 C02 Hs 632586 NM_001655 CXC11 Chemokine (C-X-C motif) (grand 11 C03 Hs 57565 NM_002094 CXC12 Chemokine (C-X-C motif) (grand 12 C04 Hs 75765 NM_002416 CXC12 Chemokine (C-X-C motif) (grand 12 C05 Hs 8440 NM_002416 CXC12 Chemokine (C-X-C motif) (grand 5 C06	B02	Hs.744542	NM 016602	CCR10	Chemokine (C-C motif) receptor 10
B04 Hs.184926 NM_005508 CCR4 Chemokine (C-C motif) receptor 4 B05 Hs.270036 NM_000188 CCR7 Chemokine (C-C motif) receptor 7 B06 Hs.225946 NM_000641 CCR9 Chemokine (C-C motif) receptor 7 B07 Hs.225948 NM_000758 CSF2 Colony stimulating factor 1 (macrophage) B08 Hs.173894 NM_000758 CSF2 Colony stimulating factor 2 (granulocyte-macrophage) B10 Hs.22333 NM_000758 CSF2 Colony stimulating factor 3 (granulocyte) B11 Hs.247824 NM_000565 CXCL1 Chemokine (C-X-C motif) ligand 1 (macrophage) C01 Hs.325565 NM_000569 CXCL1 Chemokine (C-X-C motif) ligand 11 C03 Hs.522891 NM_000609 CXCL12 Chemokine (C-X-C motif) ligand 12 C04 Hs.73675 NM_000294 CXCL2 Chemokine (C-X-C motif) ligand 1 C05 Hs.846 NM_0002974 CXCL2 Chemokine (C-X-C motif) ligand 1 C06 Hs.73675 NM_0002974 CXCL2 Chemokine (C-X-C motif) ligand 1 <td>B03</td> <td>Hs.705362</td> <td>- NM 001123396</td> <td>CCR2</td> <td>Chemokine (C-C motif) receptor 2</td>	B03	Hs.705362	- NM 001123396	CCR2	Chemokine (C-C motif) receptor 2
B05 Hs.370036 NM_001838 CCR7 Chemokine (C-C motif) receptor 7 B06 Hs.22198 NM_014143 CD274 CD274 molecule B07 Hs.52198 NM_000757 CSF1 Colony stimulating factor 1 (macrophage) B08 Hs.173894 NM_000757 CSF1 Colony stimulating factor 2 (groulecyte-macrophage) B10 Hs.2233 NM_000759 CSF3 Colony stimulating factor 3 (groulecyte-macrophage) B11 Hs.247824 NM_0005214 CTL4 Cytotoxic T-lymphocyte-associated protein 4 B12 Hs.708652 NM_001565 CXCL10 Chemokine (C-X-C motif) ligand 10 C01 Hs.322880 NM_005409 CXCL12 Chemokine (C-X-C motif) ligand 12 C03 Hs.52189 NM_000609 CXCL2 Chemokine (C-X-C motif) ligand 2 C04 Hs.57855 NM_000609 CXCL2 Chemokine (C-X-C motif) ligand 9 C05 Hs.8744 NM_000634 CXCR1 Chemokine (C-X-C motif) receptor 1 C06 Hs.777367 NM_000634 CXCR1 Chemokine (C-X-C motif) receptor 3 <	B04	Hs.184926	NM 005508	CCR4	Chemokine (C-C motif) receptor 4
B06 Hs.225946 NM_006641 CCR9 Chemokine (C-C motif) receptor 9 B07 Hs.21989 NM_00757 CSF1 Colony stimulating factor 1 (macrophage) B08 Hs.173894 NM_000757 CSF1 Colony stimulating factor 3 (granulocyte-macrophage) B09 Hs.173894 NM_000758 CSF2 Colony stimulating factor 3 (granulocyte) B10 Hs.2233 NM_000514 CTLA4 Cytotoxic T-lymphocyte-associated protein 4 B12 Hs.08652 NM_001515 CXCL1 Chemokine (C-X-C motif) ligand 1 C01 Hs.322592 NM_0005409 CXCL1 Chemokine (C-X-C motif) ligand 1 C03 Hs.322871 NM_0002090 CXCL2 Chemokine (C-X-C motif) ligand 2 C04 Hs.7365 NM_0002090 CXCL2 Chemokine (C-X-C motif) ligand 3 C05 Hs.8747 NM_000275 CXCR2 Chemokine (C-X-C motif) ligand 4 C06 Hs.7367 NM_000276 CXCR3 Chemokine (C-X-C motif) receptor 3 C06 Hs.737847 NM_000275 CXCR2 Chemokine (C-X-C motif) receptor 4	B05	Hs.370036	NM 001838	CCR7	Chemokine (C-C motif) receptor 7
B07 Hs.521989 NM_014143 CD274 CD274 molecule B08 Hs.1328 NM_000757 CSF1 Colony stimulating factor 1 (macrophage) B09 Hs.1328 NM_000758 CSF2 Colony stimulating factor 3 (granulocyte-macrophage) B10 Hs.24782 NM_000759 CSF3 Colony stimulating factor 3 (granulocyte-macrophage) B11 Hs.247824 NM_000755 CXCL1 Chemokine (C-X-C motif) ligand 1 C00 Hs.632572 NM_001505 CXCL10 Chemokine (C-X-C motif) ligand 10 C01 Hs.632572 NM_000609 CXCL11 Chemokine (C-X-C motif) ligand 12 C02 Hs.632572 NM_000609 CXCL12 Chemokine (C-X-C motif) ligand 12 C03 Hs.75765 NM_000294 CXCL2 Chemokine (C-X-C motif) ligand 5 C04 Hs.77367 NM_000340 CXCR1 Chemokine (C-X-C motif) ligand 4 C05 Hs.9778 NM_000344 CXCR1 Chemokine (C-X-C motif) ligand 5 C06 Hs.77367 NM_001567 CXCR2 Chemokine (C-X-C motif) ligand 7	B06	Hs.225946	NM 006641	CCR9	Chemokine (C-C motif) receptor 9
B08 Hs.173894 NM_000757 CSF1 Colony simulating factor 1 (macrophage) B09 Hs.1334 NM_000758 CSF2 Colony simulating factor 2 (granulocyte-macrophage) B10 Hs.2233 NM_000759 CSF3 Colony simulating factor 2 (granulocyte-macrophage) B11 Hs.27824 NM_00151 CXCL1 Cytotoxic T-lymphocyte-associated protein 4 B12 Hs.708652 NM_001555 CXCL10 Chemokine (C-X-C motif) ligand 10 C01 Hs.632366 NM_001565 CXCL11 Chemokine (C-X-C motif) ligand 12 C03 Hs.522891 NM_002099 CXCL2 Chemokine (C-X-C motif) ligand 12 C04 Hs.75765 NM_002089 CXCL2 Chemokine (C-X-C motif) ligand 12 C05 Hs.77377 NM_0020146 CXCL9 Chemokine (C-X-C motif) ligand 12 C06 Hs.77367 NM_001564 CXCL9 Chemokine (C-X-C motif) ligand 12 C07 Hs.194778 NM_0001544 CXCR9 Chemokine (C-X-C motif) ligand 9 C07 Hs.194778 NM_0001564 CXCR9 Chemokine (C-X-C motif) receptor	B07	Hs.521989	NM 014143	CD274	CD274 molecule
B09 Hs.1347 INM_000758 CSF2 Colony stimulating factor 2 (granulocyte-macrophage) B10 Hs.2233 NM_000759 CSF3 Colony stimulating factor 3 (granulocyte) B11 Hs.247824 NM_000759 CSF3 Colony stimulating factor 3 (granulocyte) B11 Hs.247824 NM_000759 CSF3 Colony stimulating factor 3 (granulocyte) B11 Hs.247824 NM_0001565 CXCL10 Chemokine (C-X-C motif) ligand 10 C01 Hs.632527 NM_000699 CXCL11 Chemokine (C-X-C motif) ligand 11 C03 Hs.57265 NM_002099 CXCL2 Chemokine (C-X-C motif) ligand 12 C04 Hs.77867 NM_002994 CXCL5 Chemokine (C-X-C motif) ligand 5 C05 Hs.87478 NM_0001557 CXCR2 Chemokine (C-X-C motif) ligand 1 C06 Hs.77367 NM_0003467 CXCR2 Chemokine (C-X-C motif) ligand 1 C07 Hs.194778 NM_000357 CXCR2 Chemokine (C-X-C motif) receptor 2 C10 Hs.98252 NM_001564 CXCR3 Chemokine (C-X-C motif) receptor 2	B08	Hs 173894	NM 000757	CSE1	Colony stimulating factor 1 (macrophage)
Bit Hs.2233 NM_000759 CSF3 Colony stimulating factor 3 (granulocyte) B11 Hs.27832 NM_000759 CSF3 Colony stimulating factor 3 (granulocyte) B12 Hs.70852 NM_000759 CSF3 Colony stimulating factor 3 (granulocyte) B12 Hs.70852 NM_00155 CXCL1 Chemokine (C-X-C motif) ligand 10 C01 Hs.632592 NM_00069 CXCL12 Chemokine (C-X-C motif) ligand 12 C03 Hs.522891 NM_00069 CXCL12 Chemokine (C-X-C motif) ligand 12 C04 Hs.73765 NM_000294 CXCL5 Chemokine (C-X-C motif) ligand 12 C05 Hs.89714 NM_002416 CXCL9 Chemokine (C-X-C motif) ligand 9 C06 Hs.77367 NM_002416 CXCL9 Chemokine (C-X-C motif) receptor 1 C08 Hs.844 NM_001597 CX62 Chemokine (C-X-C motif) receptor 2 C09 Hs.198252 NM_001504 CXCR3 Chemokine (C-X-C motif) receptor 3 C10 Hs.198151 NM_001634 EGF Epidermal growth factor D10	B09	Hs 1349	NM 000758	CSE2	Colony stimulating factor 2 (granulocyte-macronhage)
Bit Hs.247824 NM_005214 CTLA4 Cytotxic T-lymphocyte-associated protein 4 Bit Hs.247824 NM_005214 CTLA4 Cytotxic T-lymphocyte-associated protein 4 Bit Hs.278825 NM_00551 CXCL10 Chemokine [C-X-C motif) ligand 10 C01 Hs.632586 NM_005409 CXCL10 Chemokine [C-X-C motif) ligand 11 C03 Hs.522891 NM_000609 CXCL12 Chemokine [C-X-C motif) ligand 12 C04 Hs.75755 NM_000294 CXCL2 Chemokine [C-X-C motif) ligand 2 C05 Hs.89714 NM_002994 CXCL3 Chemokine [C-X-C motif) ligand 2 C06 Hs.77367 NM_002164 CXCR1 Chemokine [C-X-C motif) receptor 1 C07 Hs.194778 NM_000544 CXCR1 Chemokine [C-X-C motif) receptor 1 C08 Hs.846 NM_00154 CXCR4 Chemokine [C-X-C motif) receptor 3 C10 Hs.593413 NM_00347 CXCR4 Chemokine [C-X-C motif) receptor 4 C11 Hs.113916 NM_00176 CXCR4 Chemokine [C-X-C motif) receptor 4	B10	Hs 2233	NM 000759	CSE3	Colony stimulating factor 3 (granulocyte)
B11 Hs.208652 NM_001511 CXCL1 Chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpho) C01 Hs.632586 NM_001565 CXCL10 Chemokine (C-X-C motif) ligand 10 C02 Hs.632582 NM_000609 CXCL11 Chemokine (C-X-C motif) ligand 11 C03 Hs.522891 NM_0002089 CXCL12 Chemokine (C-X-C motif) ligand 12 C04 Hs.73765 NM_002089 CXCL2 Chemokine (C-X-C motif) ligand 12 C05 Hs.89714 NM_002416 CXCL9 Chemokine (C-X-C motif) ligand 9 C06 Hs.77367 NM_002416 CXCR2 Chemokine (C-X-C motif) receptor 1 C08 Hs.846 NM_001501 CXCR2 Chemokine (C-X-C motif) receptor 2 C09 Hs.198252 NM_001504 CXCR4 Chemokine (C-X-C motif) receptor 4 C11 Hs.113916 NM_00163 EGF Epidermol growth factor C12 Hs.49815 NM_001638 EGF Epidermol growth factor D03 Hs.20070 NM_001639 FASLG Forkhead box P3 D04 <td>B11</td> <td>Hs 247824</td> <td>NM 005214</td> <td>CTLA4</td> <td>Cytotoxic T-lymphocyte-associated protein 4</td>	B11	Hs 247824	NM 005214	CTLA4	Cytotoxic T-lymphocyte-associated protein 4
Dia Dia <thdia< th=""> <thdia< th=""> <thdia< th=""></thdia<></thdia<></thdia<>	B12	He 708652	NM 001511		Chemokine (C-X-C motif) ligged 1 (melanoma growth stimulating activity globa)
Col Hs.632592 NM_0005409 CXCL11 Chemokine (C.X-C motif) ligand 11 C03 Hs.522891 NM_000609 CXCL12 Chemokine (C.X-C motif) ligand 12 C04 Hs.75765 NM_002089 CXCL2 Chemokine (C.X-C motif) ligand 12 C05 Hs.89714 NM_002994 CXCL5 Chemokine (C.X-C motif) ligand 9 C05 Hs.846 NM_001557 CXR1 Chemokine (C-X-C motif) receptor 1 C08 Hs.846 NM_001567 CXR2 CAR1 Chemokine (C-X-C motif) receptor 3 C10 Hs.198252 NM_001567 CXR2 CAR2 Chemokine (C-X-C motif) receptor 3 C11 Hs.11916 NM_00164 CXR3 Chemokine (C-X-C motif) receptor 3 C11 Hs.19815 NM_001716 CXR4 Chemokine (C-X-C motif) receptor 5 C12 Hs.419815 NM_0005228 EGF Epidermal growth factor D01 Hs.605083 NM_000523 GBP1 Guanylate binding protein 1, interferon-inducible D04 Hs.62661 NM_0002053 GBP1 Guanylate binding protein 1, interferon	C01	Hs 632586	NM 001565		Chemokine (C-X-C motif) ligand 10
C02 Ins_003057 CRC11 Chemokine (C-X-C motif) ligand 12 C03 Hs.522891 NM_000609 CXCL2 Chemokine (C-X-C motif) ligand 2 C04 Hs.75765 NM_002994 CXCL2 Chemokine (C-X-C motif) ligand 5 C05 Hs.89714 NM_002994 CXCL5 Chemokine (C-X-C motif) ligand 5 C06 Hs.7367 NM_000634 CXCL9 Chemokine (C-X-C motif) receptor 1 C07 Hs.194778 NM_001557 CXCR2 Chemokine (C-X-C motif) receptor 2 C09 Hs.18262 NM_001564 CXCR4 Chemokine (C-X-C motif) receptor 3 C10 Hs.593413 NM_001647 CXCR4 Chemokine (C-X-C motif) receptor 3 C11 Hs.113916 NM_001716 CXCR5 Chemokine (C-X-C motif) receptor 5 C12 Hs.419815 NM_001793 EGF Epidermal growth factor D01 Hs.605083 NM_0020528 EGFR Epidermal growth factor receptor D02 Hs.2007 NM_002053 GBP1 Guanylate binding protein 1, interferon-inducible D04 Hs.6247M0	C02	He 632592	NM 005409	CYCL11	Chemokine (C-X-C motif) ligand 11
C03 INI_030201 CRC12 Chemicative Chemication C04 Hs.75765 NM_002089 CXCL2 Chemokine (C-X-C motif) ligand 2 C05 Hs.87714 NM_0020416 CXCL9 Chemokine (C-X-C motif) ligand 5 C06 Hs.77367 NM_000634 CXCL9 Chemokine (C-X-C motif) receptor 1 C07 Hs.194778 NM_000634 CXCR1 Chemokine (C-X-C motif) receptor 1 C08 Hs.846 NM_001557 CXCR2 Chemokine (C-X-C motif) receptor 1 C09 Hs.198252 NM_001716 CXCR4 Chemokine (C-X-C motif) receptor 4 C10 Hs.59313 NM_003467 CXCR4 Chemokine (C-X-C motif) receptor 4 C11 Hs.113916 NM_001763 EGF Epidermal growth factor D01 Hs.6038 NM_005228 EGFR Epidermal growth factor D02 Hs.2077 NM_00639 FASLG Fas ligand (TNF superfamily, member 6) D03 Hs.247700 NM_006144 GZMA Granzyme A (granzyme 1, cytotoxic T-lymphccyte-associated serine esterase 3) D04 Hs.026	C02	He 522891	NM 000609	CYCL12	Chemokine (C-X-C motif) ligand 12
Cost THS_002007 CXCL2 Chemokine (C-X-C motif) ligand 2 Cost Hs.87714 NM_002974 CXCL5 Chemokine (C-X-C motif) ligand 5 C06 Hs.77367 NM_002416 CXCL9 Chemokine (C-X-C motif) receptor 1 C07 Hs.194778 NM_001557 CXCR2 Chemokine (C-X-C motif) receptor 2 C08 Hs.846 NM_001504 CXCR3 Chemokine (C-X-C motif) receptor 2 C09 Hs.198252 NM_001504 CXCR4 Chemokine (C-X-C motif) receptor 3 C10 Hs.593413 NM_003467 CXCR4 Chemokine (C-X-C motif) receptor 4 C11 Hs.113916 NM_00176 CXCR5 Chemokine (C-X-C motif) receptor 5 C12 Hs.49815 NM_001963 EGF Epidermal growth factor receptor D01 Hs.605083 NM_002528 EGFR Epidermal growth factor receptor D02 Hs.2007 NM_00144 GZMA Granzyme A (granzyme 1, cytotaxic T-lymphocyte-associated serine esterase 3) D04 Hs.20207 NM_002130 GER Granzyme B (granzyme 2, cytotaxic T-lymphocyte-associated serine esterase	C04	Hc 75765	NIM_002089	CYCL2	Chemokine (C-X-C monif) ligand 12
Cod Hst_0714 HM_002116 CKCL9 Chemokine (C-X-C motif) ligand 9 C06 Hs.7737 NM_000634 CXCP Chemokine (C-X-C motif) receptor 1 C08 Hs.846 NM_001557 CXCR2 Chemokine (C-X-C motif) receptor 2 C09 Hs.19825 NM_00146 CXCR3 Chemokine (C-X-C motif) receptor 3 C10 Hs.593413 NM_003467 CXCR4 Chemokine (C-X-C motif) receptor 4 C11 Hs.113916 NM_001716 CXCR5 Chemokine (C-X-C motif) receptor 4 C11 Hs.113916 NM_001633 EGF Epidermal growth factor D01 Hs.60058 NM_005228 EGFR Epidermal growth factor receptor D02 Hs.2007 NM_00639 FASLG Fas ligand (TNF superfamily, member 6) D03 Hs.247700 NM_006144 GZM8 Granzyme A (granzyme 1, cytotaxic T-lymphocyte-associated serine esterase 3) D04 Hs.62661 NM_006144 GZM8 Granzyme A (granzyme 1, cytotaxic T-lymphocyte-associated serine esterase 3) D05 Hs.90708 NM_006130 HIF1A Hypoxia induc	C04	He 89714	NM 002994	CXCL2	Chemokine (C-X-C motif) ligand 5
Cod TM_002410 CXCP Content of the CAC motify receptor 1 C07 Hs.194778 NM_000534 CXCR1 Chemokine (C-X-C motify receptor 1 C08 Hs.846 NM_001557 CXCR2 Chemokine (C-X-C motify receptor 2 C09 Hs.198252 NM_003467 CXCR4 Chemokine (C-X-C motify receptor 3 C10 Hs.593413 NM_003467 CXCR4 Chemokine (C-X-C motify receptor 4 C11 Hs.113916 NM_001716 CXCR5 Chemokine (C-X-C motify receptor 5 C12 Hs.419815 NM_001963 EGF Epidermal growth factor D01 Hs.605083 NM_002028 EGFR Epidermal growth factor D02 Hs.247700 NM_000639 FASLG Fasl igand (TNF superfamily, member 6) D03 Hs.247700 NM_006144 GZmA Granzyme A (granzyme 1, cytotxic T-lymphocyte-associated serine esterase 3) D04 Hs.62661 NM_004131 GZMA Granzyme B (granzyme 2, cytotxic T-lymphocyte-associated serine esterase 3) D05 Hs.713441 NM_002116 HLA-A Major histocompatibility complex, cla	C05	Hc 77267	NM 002416	CYCLO	Chemokine (C-X-C motif) ligand 9
C07 Hs.1747/3 HM_200034 CXCR1 Chemion (C-X-C motif) receptor 1 C08 Hs.846 NM_001557 CXCR2 Chemokine (C-X-C motif) receptor 3 C10 Hs.593413 NM_001547 CXCR3 Chemokine (C-X-C motif) receptor 3 C10 Hs.593413 NM_001716 CXCR4 Chemokine (C-X-C motif) receptor 4 C11 Hs.113916 NM_001716 CXCR5 Chemokine (C-X-C motif) receptor 5 C12 Hs.419815 NM_001637 EGF Epidermal growth factor D01 Hs.605083 NM_0015228 EGFR Epidermal growth factor D02 Hs.2070 NM_000639 FASLG Fas ligand (TNF superfomily, member 6) D03 Hs.247700 NM_001644 GZMA Granzyme A (granzyme 1, cytotoxic T-lymphocyte-associated serine esterase 3) D04 Hs.6051 NM_001530 HIF1A Hypoxia inducible factor 1, alpha subunit (basic heix-loop-heix transcription factor) D09 Hs.713441 NM_002116 HLA-A Major histocompatibility complex, class I, A D09 Hs.77961 NM_002117 HLA-C	C07	Hc 10/778	NM 000624	CYCP1	Chemokine (C-A-C molii) ligand 7
Code Instance Instance <thinstance< th=""> <thinstance< th=""> <thin< td=""><td>C08</td><td>Hc 846</td><td>NM_001557</td><td>CYCP2</td><td>Chemokine (C-X-C molif) receptor 7</td></thin<></thinstance<></thinstance<>	C08	Hc 846	NM_001557	CYCP2	Chemokine (C-X-C molif) receptor 7
COV Hst P0212 Hst	C08	He 108252	NM 001504	CYCP2	Chemokine (C-X-C molin) receptor 2
C10 INM_003407 CXCK4 Chemokine (C-X-C molif) receptor 4 C11 Hs.13916 NM_001716 CXCK5 Chemokine (C-X-C molif) receptor 5 C12 Hs.419815 NM_00176 CXCK5 Chemokine (C-X-C molif) receptor 5 D01 Hs.605083 NM_005228 EGFR Epidermal growth factor receptor D02 Hs.2077 NM_000639 FASLG Fas ligand (TNF superfamily, member 6) D03 Hs.247700 NM_014009 FOXP3 Forkhead box P3 D04 Hs.62661 NM_00253 GBP1 Guanylate binding protein 1, interferon-inducible D05 Hs.1051 NM_00131 GZMA Granzyme A (granzyme 1, cytotoxic T-lymphocyte-associated serine esterase 3) D06 Hs.1051 NM_00130 HIF1A Hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor) D08 Hs.713441 NM_002116 HLA-A Major histocompatibility complex, class I, A D09 Hs.77961 NM_002117 HLA-C Major histocompatibility complex, class I, C D11 Hs.840 NM_002164 IDO1 <td< td=""><td>C10</td><td>Hc 502412</td><td>NM 002467</td><td>CYCR4</td><td>Chemokine (C-X-C molin) receptor 3</td></td<>	C10	Hc 502412	NM 002467	CYCR4	Chemokine (C-X-C molin) receptor 3
C11 Hs. H3710 Hs. 13710 Hs. 13710 Hs. 13710 Hs. 13710 Hs. 13710 Hs. 149815 NM_001963 EGF Epidermal growth factor D01 Hs. 405083 NM_00639 FASLG Fas ligand (TNF superfamily, member 6) D02 Hs.2007 NM_000639 FASLG Fas ligand (TNF superfamily, member 6) D03 Hs.247700 NM_0014009 FOXP3 Forkhead box P3 D04 Hs.62661 NM_002053 GBP1 Guanylate binding protein 1, interferon-inducible D05 Hs.90708 NM_001144 GZMA Granzyme A (granzyme 1, cytotxic T-lymphocyte-associated serine esterase 3) D06 Hs.1051 NM_001530 HIF1A Hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor) D08 Hs.713441 NM_002116 HLA-A Major histocompatibility complex, class I, A D09 Hs.77961 NM_002164 IDO1 Indoleamine 2,3-dioxygenase 1 D11 Hs.840 NM_002164 IDO1 Interferon, gamma E01 Hs.673 NM_000619 IFNG Interfeukin 12A	C10	Hs.373413	NM 001716		Chemokine (C-X-C molif) receptor 4
Cit2 Ins.417913 INM_001703 LOF Epidemid grown factor D01 Hs.605083 NM_005228 EGFR Epidemal growth factor receptor D02 Hs.2007 NM_00639 FASLG Fas ligand (TNF superfamily, member 6) D03 Hs.247700 NM_002053 GBP1 Guanylate binding protein 1, interferon-inducible D04 Hs.62661 NM_002053 GBP1 Guanylate binding protein 1, interferon-inducible D05 Hs.90708 NM_006144 GZMA Granzyme A (granzyme 1, cytotoxic T-lymphocyte-associated serine esterase 3) D06 Hs.1051 NM_004131 GZMB Granzyme 8 (granzyme 2, cytotoxic T-lymphocyte-associated serine esterase 1) D07 Hs.719495 NM_001530 HIF1A Hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor) D08 Hs.713441 NM_002116 HLA-A Major histocompatibility complex, class I, A D09 Hs.77961 NM_002117 HLA-C Major histocompatibility complex, class I, C D11 Hs.840 NM_002164 IDO1 Indolearmine 2,3-diaxygenase 1 D12	C11	Hs.113910	NM 001042	ECE	Enidermal growth faster
D01 Hs.003083 NM_003226 LOFK Epidermial growth factor receptor D02 Hs.2007 NM_000639 FASLG Fas ligand (TNF superfamily, member 6) D03 Hs.247700 NM_014009 FOXP3 Forkhead box P3 D04 Hs.62661 NM_006144 GZMA Granzyme A (granzyme 1, cytotoxic T-lymphocyte-associated serine esterase 3) D06 Hs.1051 NM_004131 GZMB Granzyme B (granzyme 2, cytotoxic T-lymphocyte-associated serine esterase 3) D07 Hs.719495 NM_001530 HIF1A Hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor) D08 Hs.713441 NM_002116 HLA-A Major histocompatibility complex, class I, A D09 Hs.77961 NM_002117 HLA-C Major histocompatibility complex, class I, A D10 Hs.77961 NM_002164 IDO1 Indolearmine 2,3-diaxygenase 1 D11 Hs.856 NM_000619 IFNG Interferon, gamma E01 Hs.160562 NM_000618 IGF1 Insulin-like growth factor 1 (somatomedin C) E02 Hs.673 NM_00	012	HS.419615	NM_001983	EGF	Epidermal growth factor
D02INS_2007INS_2000INS_200INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_2000INS_20000INS_20000INS_20000INS_20000INS_20000INS_20000INS_20000INS_20000INS_2	D01	Hs.005083	NM_0005228	EGER	Epidermal growth factor receptor
D03Hs.247700NM_014009POXP3Porknead box P3D04Hs.62661NM_002053GBP1Guanylate binding protein 1, interferon-inducibleD05Hs.90708NM_006144GZMAGranzyme A (granzyme 1, cytotxic T-lymphocyte-associated serine esterase 3)D06Hs.1051NM_004131GZMBGranzyme 8 (granzyme 2, cytotxic T-lymphocyte-associated serine esterase 1)D07Hs.719495NM_001530HIF1AHypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)D08Hs.713441NM_002116HLA-AMajor histocompatibility complex, class I, AD09Hs.77961NM_002117HLA-BMajor histocompatibility complex, class I, CD10Hs.77961NM_002164IDO1Indolearnine 2,3-dioxygenase 1D12Hs.856NM_000619IFNGInterferon, gammaE01Hs.160562NM_000618IGF1Insulin-like growth factor 1 (somatomedin C)E03Hs.673NM_000882IL12AInterleukin 12A (natural killer cell stimulatory factor 1, cytotxic lymphocyte maturation factor 2, cytotxic lymphocyte maturation factor 2, p40)E05Hs.845NM_002188IL13Interleukin 13E06Hs.602618NM_00585IL15Interleukin 15	D02	□S.2007	NM_000839	FASLG	Fas ligana (TNF superfamily, member o)
D04Hs.62601NM_002053GBP1Guadaylate binding protein 1, interferon-inducibleD05Hs.90708NM_006144GZMAGranzyme A (granzyme 1, cytotoxic T-lymphocyte-associated serine esterase 3)D06Hs.1051NM_004131GZMBGranzyme B (granzyme 2, cytotoxic T-lymphocyte-associated serine esterase 3)D07Hs.719495NM_001530HIF1AHypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)D08Hs.713441NM_002116HLA-AMajor histocompatibility complex, class I, AD09Hs.77961NM_005514HLA-BMajor histocompatibility complex, class I, BD10Hs.77961NM_002117HLA-CMajor histocompatibility complex, class I, CD11Hs.856NM_002164IDO1Indoleamine 2,3-dioxygenase 1D12Hs.856NM_000619IFNGInterferon, gammaE01Hs.160562NM_000618IGF1Insulin-like growth factor 1 (somatomedin C)E02Hs.673NM_000882IL12AInterleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 2, p40)E04Hs.674NM_002187IL12BInterleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)E05Hs.845NM_002188IL13Interleukin 13E06Hs.602618NM_00585IL15Interleukin 15	D03	HS.247700	NM_014009	FUXP3	
D03Hs.90706NM_008144GZ/MAGranzyme A (granzyme 1, cytotoxic 1-lymphocyte-associated serine esterase 3)D06Hs.1051NM_004131GZ/MBGranzyme 8 (granzyme 2, cytotoxic 1-lymphocyte-associated serine esterase 1)D07Hs.719495NM_001530HIF1AHypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)D08Hs.713441NM_002116HLA-AMajor histocompatibility complex, class I, AD09Hs.77961NM_005514HLA-BMajor histocompatibility complex, class I, BD10Hs.77961NM_002117HLA-CMajor histocompatibility complex, class I, CD11Hs.840NM_002164IDO1Indeleamine 2,3-dioxygenase 1D12Hs.856NM_000618IGF1Insulin-like growth factor 1 (somatomedin C)E02Hs.105562NM_000572IL10Interleukin 10E03Hs.673NM_000882IL12AInterleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35)E04Hs.674NM_002187IL12BInterleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)E05Hs.845NM_002188IL13Interleukin 13E06Hs.602618NM_00585IL15Interleukin 15	D04	Hs.02001	NM_002053	GBPT	Guanyiate binding protein 1, interferon-inducible
D00Hs. 1031NM_004131G2/MBGranzyme b (granzyme z), synotxic 1-lymphocyte-associated serine esterase 1)D07Hs. 719495NM_001530HIF1AHypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)D08Hs. 713441NM_002116HLA-AMajor histocompatibility complex, class I, AD09Hs. 77961NM_005514HLA-AMajor histocompatibility complex, class I, AD10Hs. 77961NM_002117HLA-CMajor histocompatibility complex, class I, CD11Hs. 840NM_002164IDO1Indolearnine 2,3-diaxygenase 1D12Hs. 856NM_000618IGF1Insulin-like growth factor 1 (somatomedin C)E02Hs. 193717NM_000572IL10Interleukin 10E03Hs. 673NM_000882IL12AInterleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35)E04Hs. 674NM_002187IL12BInterleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)E05Hs. 845NM_002188IL13Interleukin 13E06Hs.602618NM_000585IL15Interleukin 15	D05	Hs.90708	NM_006144	GZMA	Granzyme A (granzyme 1, cytotoxic 1-lymphocyte-associated serine esterase 3)
D07 Hs.719495 NM_001530 HIF1A Hypoxia inducible factor 1, alpha subuni (basic helix-loop-helix transcription factor) D08 Hs.713441 NM_002116 HLA-A Major histocompatibility complex, class I, A D09 Hs.77961 NM_002514 HLA-A Major histocompatibility complex, class I, A D09 Hs.77961 NM_002117 HLA-B Major histocompatibility complex, class I, A D10 Hs.77961 NM_002164 IDO1 Indoleamine 2,3-dioxygenase 1 D11 Hs.840 NM_0002164 IDO1 Indoleamine 2,3-dioxygenase 1 D12 Hs.856 NM_000619 IFNG Interferon, gamma E01 Hs.160562 NM_000618 IGF1 Insulin-like growth factor 1 (somatomedin C) E02 Hs.193717 NM_000572 IL10 Interleukin 10 E03 Hs.673 NM_000882 IL12A Interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 2, pt00 E04 Hs.674 NM_002187 IL12B Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)	D06	Hs. 1051	NM_004131	GZMB	Granzyme B (granzyme Z, cytotoxic 1-lymphocyte-associated serine esterase 1)
D08 Hs.713441 NM_002116 HLA-A Major histocompatibility complex, class I, A D09 Hs.77961 NM_005514 HLA-B Major histocompatibility complex, class I, B D10 Hs.77961 NM_002117 HLA-C Major histocompatibility complex, class I, B D10 Hs.77961 NM_002164 IDO1 Indoleamine 2,3-dioxygenase 1 D11 Hs.840 NM_002164 IDO1 Indoleamine 2,3-dioxygenase 1 D12 Hs.856 NM_000619 IFNG Interferon, gamma E01 Hs.160562 NM_000618 IGF1 Insulin-like growth factor 1 (somatomedin C) E02 Hs.193717 NM_000872 IL10 Interleukin 100 E03 Hs.673 NM_000882 IL12A Interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35) E04 Hs.674 NM_002187 IL12B Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40) E05 Hs.845 NM_002585 IL15 Interleukin 15	D07	Hs.719495	NM_001530	HIF1A	Hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription
D08 Hs./13441 NM_002116 HLA-A Major histocompatibility complex, class I, A D09 Hs./77961 NM_005514 HLA-B Major histocompatibility complex, class I, B D10 Hs.77961 NM_002117 HLA-B Major histocompatibility complex, class I, C D10 Hs.77961 NM_002117 HLA-C Major histocompatibility complex, class I, C D11 Hs.840 NM_002164 IDO1 Indoleamine 2,3-dioxygenase 1 D12 Hs.856 NM_000619 IFNG Interferon, gamma E01 Hs.160562 NM_000618 IGF1 Insulin-like growth factor 1 (somatomedin C) E02 Hs.1673 NM_000572 IL10 Interleukin 10 E03 Hs.673 NM_000882 IL12A Interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35) E04 Hs.674 NM_002187 IL12B Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40) E05 Hs.845 NM_002188 IL13 Interleukin 13 E06 Hs.602618 NM_002585<	500		_		factor)
D09 Hs./7961 NM_005514 HLA-B Major histocompatibility complex, class I, B D10 Hs.77961 NM_002117 HLA-C Major histocompatibility complex, class I, B D11 Hs.77961 NM_002117 HLA-C Major histocompatibility complex, class I, C D11 Hs.856 NM_002164 IDO1 Indoleamine 2,3-dioxygenase 1 D12 Hs.856 NM_000619 IFNG Interferon, gamma E01 Hs.160562 NM_000618 IGF1 Insulin-like growth factor 1 (somatomedin C) E02 Hs.193717 NM_000572 IL10 Interleukin 10 E03 Hs.673 NM_000882 IL12A Interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35) E04 Hs.674 NM_002187 IL12B Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40) E05 Hs.845 NM_002188 IL13 Interleukin 13 E06 Hs.602618 NM_00585 IL15 Interleukin 15	D08	Hs./13441	NM_002116	HLA-A	Major histocompatibility complex, class I, A
D10 Hs.77961 NM_002117 HLA-C Major histocompatibility complex, class I, C D11 Hs.840 NM_002164 IDO1 Indolearnine 2,3-dioxygenase 1 D12 Hs.856 NM_000619 IFNG Interferon, gamma E01 Hs.160562 NM_000618 IGF1 Insulin-like growth factor 1 (somatomedin C) E02 Hs.193717 NM_000572 IL10 Interleukin 10 E03 Hs.673 NM_000882 IL12A Interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35) E04 Hs.674 NM_002187 IL12B Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40) E05 Hs.845 NM_002188 IL13 Interleukin 13 E06 Hs.602618 NM_000585 IL15 Interleukin 15	D09	Hs.//961	NM_005514	HLA-B	Major histocompatibility complex, class I, B
D11 Hs.840 NM_002164 IDO1 Indoleamine 2,3-dioxygenase 1 D12 Hs.856 NM_000619 IFNG Interferon, gamma E01 Hs.160562 NM_000618 IGF1 Insulin-like growth factor 1 (somatomedin C) E02 Hs.193717 NM_000572 IL10 Interleukin 10 E03 Hs.673 NM_000882 IL12A Interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35) E04 Hs.674 NM_002187 IL12B Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40) E05 Hs.845 NM_002188 IL13 Interleukin 13 E06 Hs.602618 NM_000585 IL15 Interleukin 15	D10	Hs.77961	NM_002117	HLA-C	Major histocompatibility complex, class I, C
D12 Hs.856 NM_000619 IFNG Interferon, gamma E01 Hs.160562 NM_000618 IGF1 Insulin-like growth factor 1 (somatomedin C) E02 Hs.173717 NM_000572 IL10 Interleukin 10 E03 Hs.673 NM_000882 IL12A Interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35) E04 Hs.674 NM_002187 IL12B Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40) E05 Hs.845 NM_000585 IL15 Interleukin 15	DII	Hs.840	NM_002164	IDOT	Indoleamine 2,3-dioxygenase 1
E01 Hs.160562 NM_000618 IGF1 Insulin-like growth factor 1 (somatomedin C) E02 Hs.193717 NM_000572 IL10 Interleukin 10 E03 Hs.673 NM_000882 IL12A Interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35) E04 Hs.674 NM_002187 IL12B Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40) E05 Hs.845 NM_002188 IL13 Interleukin 13 E06 Hs.602618 NM_000585 IL15 Interleukin 15	D12	Hs.856	NM_000619	IFNG	Interteron, gamma
E02 Hs.193717 NM_000572 IL10 Interleukin 10 E03 Hs.673 NM_000882 IL12A Interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35) E04 Hs.674 NM_002187 IL12B Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40) E05 Hs.845 NM_002188 IL13 Interleukin 13 E06 Hs.602618 NM_000585 IL15 Interleukin 15	E01	Hs.160562	NM_000618	IGF1	Insulin-like growth factor 1 (somatomedin C)
E03 Hs.673 NM_000882 IL12A Interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35) E04 Hs.674 NM_002187 IL12B Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40) E05 Hs.845 NM_002188 IL13 Interleukin 13 E06 Hs.602618 NM_000585 IL15 Interleukin 15	E02	Hs.193717	NM_000572	IL10	Interleukin 10
E04 Hs.674 NM_002187 IL12B Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40) E05 Hs.845 NM_002188 IL13 Interleukin 13 E06 Hs.602618 NM_000585 IL15 Interleukin 15	E03	Hs.673	NM_000882	IL12A	Interleukin 12A (natural killer cell stimulatory factor 1, cytotoxic lymphocyte maturation factor 1, p35)
E05 Hs.845 NM_002188 IL13 Interleukin 13 E06 Hs.602618 NM_000585 IL15 Interleukin 15	E04	Hs.674	NM_002187	IL12B	Interleukin 12B (natural killer cell stimulatory factor 2, cytotoxic lymphocyte maturation factor 2, p40)
E06 Hs.602618 NM_000585 IL15 Interleukin 15	E05	Hs.845	NM_002188	IL13	Interleukin 13
	E06	Hs.602618	NM_000585	IL15	Interleukin 15

Position	UniGene	GenBank	Symbol	Description	
E07	Hs.41724	NM_002190	IL17A	Interleukin 17A	
E08	Hs.1722	NM_000575	IL1A	Interleukin 1, alpha	
E09	Hs.126256	NM 000576	IL1B	Interleukin 1, beta	
E10	Hs.89679	NM 000586	IL2	Interleukin 2	
E11	Hs.591803	NM 016584	IL23A	Interleukin 23, alpha subunit p19	
E12	Hs.73917	NM 000589	IL4	Interleukin 4	
F01	Hs.654458	NM_000600	IL6	Interleukin 6 (interferon, beta 2)	
F02	Hs.624	NM_000584	IL8	Interleukin 8	
F03	Hs.436061	NM_002198	IRF1	Interferon regulatory factor 1	
F04	Hs.1048	NM_003994	KITLG	KIT ligand	
F05	Hs.130838	NM_000247	MICA	MHC class I polypeptide-related sequence A	
F06	Hs.731446	NM_005931	MICB	MHC class I polypeptide-related sequence B	
F07	Hs.407995	NM 002415	MIF	Macrophage migration inhibitory factor (glycosylation-inhibiting factor)	
F08	Hs.202453	NM_002467	MYC	V-myc myelocytomatosis viral oncogene homolog (avian)	
F09	Hs.82116	NM 002468	MYD88	Myeloid differentiation primary response gene (88)	
F10	Hs.618430	NM 003998	NFKB1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1	
F11	Hs.709191	NM 000625	NOS2	Nitric oxide synthase 2, inducible	
F12	Hs.158297	NM 005018	PDCD1	Programmed cell death 1	
0.01	11 10/00/		DTOCO	Prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and	
GOT	Hs.196384	NM_000963	PIGS2	cyclooxygenase)	
G02	Hs.313	NM_000582	SPP1	Secreted phosphoprotein 1	
G03	Hs.743244	NM_007315	STAT1	Signal transducer and activator of transcription 1, 91kDa	
G04	Hs.463059	NM_003150	STAT3	Signal transducer and activator of transcription 3 (acute-phase response factor)	
G05	Hs.645227	NM_000660	TGFB1	Signal transaucer and activator of transcription 3 (acute-phase response factor) Transforming growth factor, beta 1	
G06	Hs.519033	NM_003264	TLR2	Toll-like receptor 2	
G07	Hs.657724	NM_003265	TLR3	Toll-like receptor 3	
G08	Hs.174312	NM_138554	TLR4	Toll-like receptor 4	
G09	Hs.241570	NM_000594	TNF	Tumor necrosis factor	
G10	Hs.478275	NM_003810	TNFSF10	Tumor necrosis factor (ligand) superfamily, member 10	
G11	Hs.740601	NM_000546	TP53	Tumor protein p53	
G12	Hs.73793	NM_003376	VEGFA	Vascular endothelial growth factor A	
H01	Hs.520640	NM_001101	ACTB	Actin, beta	
H02	Hs.534255	NM_004048	B2M	Beta-2-microglobulin	
H03	Hs.544577	NM_002046	GAPDH	Glyceraldehyde-3-phosphate dehydrogenase	
H04	Hs.412707	NM 000194	HPRT1	Hypoxanthine phosphoribosyltransferase 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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