# RT² Profiler PCR Array (Rotor-Gene® Format)

# Rat Chemokines & Receptors

### Cat. no. 330231 PARN-022ZR

### For pathway expression analysis

| Format | For use with the following real-time cyclers |
|---|---|
| RT² Profiler PCR Array, Format R | Rotor-Gene Q, other Rotor-Gene cyclers |

## Description

The Rat Chemokines & Receptors RT² Profiler PCR Array profiles the expression of 84 genes that encode chemokines and their receptors. The array contains members of the C-C and C-X-C motif subfamilies of small inducible cytokines and their receptors as well as other related genes. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to the immune system 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.

## 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

| Position | UniGene | GenBank | Symbol | Description |
|---|---|---|---|---|
| A01 | Rn.21259 | XM_342421 | C5 | Complement component 5 |
| A02 | Rn.10680 | NM_053619 | C5ar1 | Complement component 5a receptor 1 |
| A03 | Rn.10771 | NM_078621 | Ccbp2 | Chemokine binding protein 2 |
| A04 | Rn.10632 | NM_019205 | Ccl11 | Chemokine (C-C motif) ligand 11 |
| A05 | Rn.137780 | NM_001105822 | Ccl12 | Chemokine (C-C motif) ligand 12 |
| A06 | Rn.46679 | NM_057151 | Ccl17 | Chemokine (C-C motif) ligand 17 |
| A07 | Rn.12445 | NM_001108661 | Ccl19 | Chemokine (C-C motif) ligand 19 |
| A08 | Rn.4772 | NM_031530 | Ccl2 | Chemokine (C-C motif) ligand 2 |
| A09 | Rn.10722 | NM_019233 | Ccl20 | Chemokine (C-C motif) ligand 20 |
| A10 | Rn.39658 | NM_001008513 | Ccl21 | Chemokine (C-C motif) ligand 21 |
| A11 | Rn.48727 | NM_057203 | Ccl22 | Chemokine (C-C motif) ligand 22 |
| A12 | Rn.138822 | NM_001013045 | Ccl24 | Chemokine (C-C motif) ligand 24 |
| B01 | Rn.140677 | NM_001037203 | Ccl25 | Chemokine (C-C motif) ligand 25 |
| B02 | Rn.195764 | NM_053700 | Ccl28 | Chemokine (C-C motif) ligand 28 |
| B03 | Rn.10139 | NM_013025 | Ccl3 | Chemokine (C-C motif) ligand 3 |
| B04 | Rn.37880 | NM_053858 | Ccl4 | Chemokine (C-C motif) ligand 4 |
| B05 | Rn.8019 | NM_031116 | Ccl5 | Chemokine (C-C motif) ligand 5 |
| B06 | Rn.7857 | NM_001004202 | Ccl6 | Chemokine (C-C motif) ligand 6 |
| B07 | Rn.26815 | NM_001007612 | Ccl7 | Chemokine (C-C motif) ligand 7 |
| B08 | Rn.145427 | NM_001012357 | Ccl9 | Chemokine (C-C motif) ligand 9 |
| B09 | Rn.34673 | NM_020542 | Ccr1 | Chemokine (C-C motif) receptor 1 |
| B10 | Rn.49607 | NM_001108836 | Ccr10 | Chemokine (C-C motif) receptor 10 |
| B11 | Rn.218537 | NM_001106872 | Ccr1l1 | Chemokine (C-C motif) receptor 1-like 1 |
| B12 | Rn.211983 | NM_021866 | Ccr2 | Chemokine (C-C motif) receptor 2 |
| C01 | Rn.9890 | NM_053958 | Ccr3 | Chemokine (C-C motif) receptor 3 |
| C02 | Rn.81076 | NM_133532 | Ccr4 | Chemokine (C-C motif) receptor 4 |
| C03 | Rn.10736 | NM_053960 | Ccr5 | Chemokine (C-C motif) receptor 5 |
| C04 | Rn.161767 | NM_001013145 | Ccr6 | Chemokine (C-C motif) receptor 6 |
| C05 | Rn.16815 | NM_199489 | Ccr7 | Chemokine (C-C motif) receptor 7 |
| C06 | N/A | XM_236704 | Ccr8 | Chemokine (C-C motif) receptor 8 |
| C07 | Rn.91140 | NM_172329 | Ccr9 | Chemokine (C-C motif) receptor 9 |
| C08 | Rn.67232 | NM_001108191 | Ccrl2 | Chemokine (C-C motif) receptor-like 2 |
| C09 | Rn.81197 | NM_139111 | Cklf | Chemokine-like factor |
| C10 | Rn.44465 | NM_022218 | Cmklr1 | Chemokine-like receptor 1 |
| C11 | Rn.163394 | NM_001013142 | Cmtm2a | CKLF-like MARVEL transmembrane domain containing 2A |
| C12 | Rn.15332 | NM_001106164 | Cmtm3 | CKLF-like MARVEL transmembrane domain containing 3 |
| D01 | Rn.100853 | NM_001106034 | Cmtm5 | CKLF-like MARVEL transmembrane domain containing 5 |
| D02 | Rn.107266 | NM_134455 | Cx3cl1 | Chemokine (C-X3-C motif) ligand 1 |
| D03 | Rn.10482 | NM_133534 | Cx3cr1 | Chemokine (C-X3-C motif) receptor 1 |
| D04 | Rn.10907 | NM_030845 | Cxcl1 | Chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpha) |
| D05 | Rn.10584 | NM_139089 | Cxcl10 | Chemokine (C-X-C motif) ligand 10 |
| D06 | Rn.13664 | NM_182952 | Cxcl11 | Chemokine (C-X-C motif) ligand 11 |
| D07 | Rn.54439 | NM_022177 | Cxcl12 | Chemokine (C-X-C motif) ligand 12 (stromal cell-derived factor 1) |
| D08 | Rn.6917 | NM_001017496 | Cxcl13 | Chemokine (C-X-C motif) ligand 13 |
| D09 | Rn.3130 | NM_001013137 | Cxcl14 | Chemokine (C-X-C motif) ligand 14 |
| D10 | Rn.7070 | NM_001017478 | Cxcl16 | Chemokine (C-X-C motif) ligand 16 |
| D11 | Rn.10230 | NM_053647 | Cxcl2 | Chemokine (C-X-C motif) ligand 2 |
| D12 | Rn.10525 | NM_138522 | Cxcl3 | Chemokine (C-X-C motif) ligand 3 |
| E01 | Rn.44449 | NM_022214 | Cxcl5 | Chemokine (C-X-C motif) ligand 5 |
| E02 | Rn.7391 | NM_145672 | Cxcl9 | Chemokine (C-X-C motif) ligand 9 |
| E03 | Rn.90347 | NM_017183 | Cxcr2 | Chemokine (C-X-C motif) receptor 2 |
| E04 | Rn.24787 | NM_053415 | Cxcr3 | Chemokine (C-X-C motif) receptor 3 |
| E05 | Rn.44431 | NM_022205 | Cxcr4 | Chemokine (C-X-C motif) receptor 4 |
| E06 | Rn.127121 | NM_053303 | Cxcr5 | Chemokine (C-X-C motif) receptor 5 |
| E07 | Rn.217921 | NM_001102587 | Cxcr6 | Chemokine receptor CXCR6 |
| E08 | Rn.12959 | NM_053352 | Cxcr7 | Chemokine (C-X-C motif) receptor 7 |
| E09 | Rn.31808 | NM_019305 | Fgf2 | Fibroblast growth factor 2 |

| Position | UniGene | GenBank | Symbol | Description |
|---|---|---|---|---|
| E10 | Rn.218643 | NM_001106216 | Fpr1 | Formyl peptide receptor 1 |
| E11 | Rn.212749 | NM_001071777 | Gpr17 | G protein-coupled receptor 17 |
| E12 | Rn.10852 | NM_024359 | Hif1a | Hypoxia-inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor) |
| F01 | Rn.10795 | NM_138880 | Ifng | Interferon gamma |
| F02 | Rn.9868 | NM_012854 | Il10 | Interleukin 10 |
| F03 | Rn.104665 | NM_001105749 | Il16 | Interleukin 16 |
| F04 | Rn.9869 | NM_031512 | Il1b | Interleukin 1 beta |
| F05 | Rn.108255 | NM_201270 | Il4 | Interleukin 4 |
| F06 | Rn.9873 | NM_012589 | Il6 | Interleukin 6 |
| F07 | Rn.138115 | NM_019310 | Il8ra | Interleukin 8 receptor, alpha |
| F08 | Rn.54465 | NM_012711 | Itgam | Integrin, alpha M |
| F09 | Rn.42962 | NM_001037780 | Itgb2 | Integrin, beta 2 |
| F10 | Rn.88869 | NM_013062 | Kdr | Kinase insert domain receptor |
| F11 | Rn.34914 | NM_053842 | Mapk1 | Mitogen activated protein kinase 1 |
| F12 | Rn.88085 | NM_031020 | Mapk14 | Mitogen activated protein kinase 14 |
| G01 | Rn.6800 | NM_001007729 | Pf4 | Platelet factor 4 |
| G02 | Rn.6064 | NM_013085 | Plau | Plasminogen activator, urokinase |
| G03 | Rn.67082 | NM_153721 | Ppbp | Pro-platelet basic protein (chemokine (C-X-C motif) ligand 7) |
| G04 | Rn.207908 | NM_001105713 | Prkca | Protein kinase C, alpha |
| G05 | Rn.146652 | NM_022632 | Slit2 | Slit homolog 2 (Drosophila) |
| G06 | Rn.40136 | NM_021578 | Tgfb1 | Transforming growth factor, beta 1 |
| G07 | Rn.46387 | NM_198769 | Tlr2 | Toll-like receptor 2 |
| G08 | Rn.14534 | NM_019178 | Tlr4 | Toll-like receptor 4 |
| G09 | Rn.2275 | NM_012675 | Tnf | Tumor necrosis factor (TNF superfamily, member 2) |
| G10 | Rn.219088 | NM_001012122 | Tymp | Thymidine phosphorylase |
| G11 | Rn.1923 | NM_031836 | Vegfa | Vascular endothelial growth factor A |
| G12 | Rn.90962 | NM_134361 | Xcl1 | Chemokine (C motif) ligand 1 |
| H01 | Rn.94978 | NM_031144 | Actb | Actin, beta |
| H02 | Rn.1868 | NM_012512 | B2m | Beta-2 microglobulin |
| H03 | Rn.47 | NM_012583 | Hprt1 | Hypoxanthine phosphoribosyltransferase 1 |
| H04 | Rn.107896 | NM_017025 | Ldha | Lactate dehydrogenase A |
| H05 | Rn.973 | NM_001007604 | Rplp1 | Ribosomal protein, large, P1 |
| H06 | N/A | U26919 | RGDC | Rat 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 |

## Related products

For optimal performance, RT² Profiler PCR Arrays should be used together with the RT² First Strand Kit for cDNA synthesis and RT² SYBR® Green qPCR Mastermixes for PCR.

| Product | Contents | Cat. no. |
|---|---|---|
| RT² First Strand Kit (12) | Enzymes and reagents for cDNA synthesis | 330401 |
| RT² SYBR Green ROX™ FAST Mastermix (2)* | For 2 x 96 assays in 96-well plates; suitable for use with the Rotor-Gene Q and other Rotor-Gene cyclers | 330620 |

* Larger kit sizes available; please inquire.

RT² Profiler PCR Array products are intended for molecular biology applications. These products are not intended for the diagnosis, prevention, or treatment of a disease.

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