RT² Profiler PCR Array (Rotor-Gene® Format)

Mouse Crohn's Disease

Cat. no. 330231 PAMM-169ZR

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 Mouse Crohn's Disease RT² Profiler PCR Array profiles the expression of 84 key genes differentially expressed during inflammatory bowel disease (IBD). The most common form of IBD is Crohn's disease, an inflammatory disorder of the intestines. Ulcerative colitis (UC), another common form of IBD, only affects the mucosa of the large intestine. The major symptoms of IBD include abdominal pain, vomiting, and diarrhea. The disease can result in weight loss, and during severe cases the patient may undergo complications such as decreased intestinal function and ultimately colectomy. Although the initial cause of IBD is not generally understood, the resulting biology is under investigation to research potential therapies as well as biomarkers for the various types of IBD. One major therapeutic goal is to reduce IBD symptoms and inflammation, since the symptomatic diseases have an increased risk of colorectal cancer. Inflammatory cytokines are upregulated, as are extracellular remodeling enzymes. The immune response is also upregulated, including innate immunity and T cell responses. Microarray studies have compared both Crohn's disease and UC to controls and each other to attempt to identify the underlying causes. This array includes genes identified via microarray to be differentially regulated during Crohn's disease and UC. A set of controls present on each array enables data analysis using the ΔΔCT method of relative quantification, assessment of reverse transcription performance, genomic DNA contamination, and PCR performance. Using real-time PCR, research studies can easily and reliably analyze the expression of a focused panel of genes involved in inflammatory bowel disease 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	Mm.207354	NM_011076	Abcb1a	ATP-binding cassette, sub-family B (MDR/TAP), member 1A
A02	Mm.2409	NM_007409	Adh1	Alcohol dehydrogenase 1 (class I)
A03	Mm.482116	NM_144903	Aldob	Aldolase B, fructose-bisphosphate
A04	Mm.272972	NM_029846	Atg16l1	Autophagy-related 16-like 1 (yeast)
A05	Mm.19131	NM_009778	C3	Complement component 3
A06	Mm.1051	NM_009807	Casp1	Caspase 1
A07	Mm.4686	NM_011330	Ccl11	Chemokine (C-C motif) ligand 11
A08	Mm.867	NM_011331	Ccl12	Chemokine (C-C motif) ligand 12
A09	Mm.116739	NM_016960	Ccl20	Chemokine (C-C motif) ligand 20
A10	Mm.7275	NM_009138	Ccl25	Chemokine (C-C motif) ligand 25
A11	Mm.284248	NM_013653	Ccl5	Chemokine (C-C motif) ligand 5
A12	Mm.274927	NM_009912	Ccr1	Chemokine (C-C motif) receptor 1
B01	Mm.6272	NM_009915	Ccr2	Chemokine (C-C motif) receptor 2
B02	Mm.14302	NM_009917	Ccr5	Chemokine (C-C motif) receptor 5
B03	Mm.440604	NM_009913	Ccr9	Chemokine (C-C motif) receptor 9
B04	Mm.101591	NM_010016	Cd55	CD55 antigen
B05	Mm.38274	NM_007695	Chi3l1	Chitinase 3-like 1
B06	Mm.25836	NM_018778	Cldn8	Claudin 8
B07	Mm.277792	NM_007743	Col1a2	Collagen, type I, alpha 2
B08	Mm.235387	NM_007758	Cr2	Complement receptor 2
B09	Mm.300592	NM_001033239	Csta	Cystatin A
B10	Mm.103711	NM_009142	Cx3cl1	Chemokine (C-X3-C motif) ligand 1
B11	Mm.44065	NM_009987	Cx3cr1	Chemokine (C-X3-C) receptor 1
B12	Mm.21013	NM_008176	Cxcl1	Chemokine (C-X-C motif) ligand 1
C01	Mm.877	NM_021274	Cxcl10	Chemokine (C-X-C motif) ligand 10
C02	Mm.131723	NM_019494	Cxcl11	Chemokine (C-X-C motif) ligand 11
C03	Mm.303231	NM_021704	Cxcl12	Chemokine (C-X-C motif) ligand 12
C04	Mm.4979	NM_009140	Cxcl2	Chemokine (C-X-C motif) ligand 2
C05	Mm.244289	NM_203320	Cxcl3	Chemokine (C-X-C motif) ligand 3
C06	Mm.766	NM_008599	Cxcl9	Chemokine (C-X-C motif) ligand 9
C07	Mm.337035	NM_178241	Cxcr1	Chemokine (C-X-C motif) receptor 1
C08	Mm.12876	NM_009910	Cxcr3	Chemokine (C-X-C motif) receptor 3
C09	Mm.9478	NM_007903	Edn3	Endothelin 3
C10	Mm.103737	NM_018781	Egr3	Early growth response 3
C11	Mm.56951	NM_013521	Fpr1	Formyl peptide receptor 1
C12	Mm.45494	NM_008100	Gcg	Glucagon
D01	Mm.235338	NM_010378	H2-Aa	Histocompatibility 2, class II antigen A, alpha
D02	Mm.22564	NM_010382	H2-Eb1	Histocompatibility 2, class II antigen E beta
D03	Mm.87773	NM_011631	Hsp90b1	Heat shock protein 90, beta (Grp94), member 1
D04	Mm.330160	NM_022310	Hspa5	Heat shock protein 5
D05	Mm.240327	NM_008337	Ifng	Interferon gamma
D06	Mm.1284	NM_008355	Il13	Interleukin 13
D07	Mm.5419	NM_010552	Il17a	Interleukin 17A
D08	Mm.222830	NM_008361	Il1b	Interleukin 1 beta
D09	Mm.882	NM_031167	Il1rn	Interleukin 1 receptor antagonist
D10	Mm.125482	NM_031252	Il23a	Interleukin 23, alpha subunit p19
D11	Mm.915	NM_008367	Il2ra	Interleukin 2 receptor, alpha chain
D12	Mm.4461	NM_010558	Il5	Interleukin 5
E01	Mm.1019	NM_031168	Il6	Interleukin 6
E02	Mm.6479	NM_012057	Irf5	Interferon regulatory factor 5
E03	Mm.4950	NM_015783	Isg15	ISG15 ubiquitin-like modifier
E04	Mm.1137	NM_008404	Itgb2	Integrin beta 2
E05	Mm.9537	NM_008491	Lcn2	Lipocalin 2
E06	Mm.1715	NM_008518	Ltb	Lymphotoxin B
E07	Mm.177539	NM_013590	Lyz1	Lysozyme 1
E08	Mm.14126	NM_019471	Mmp10	Matrix metallopeptidase 10
E09	Mm.2055	NM_008605	Mmp12	Matrix metallopeptidase 12

Position	UniGene	GenBank	Symbol	Description
E10	Mm.156952	NM_032006	Mmp1a	Matrix metallopeptidase 1a (interstitial collagenase)
E11	Mm.4993	NM_010809	Mmp3	Matrix metallopeptidase 3
E12	Mm.4825	NM_010810	Mmp7	Matrix metallopeptidase 7
F01	Mm.16193	NM_013605	Muc1	Mucin 1, transmembrane
F02	Mm.222633	NM_145857	Nod2	Nucleotide-binding oligomerization domain containing 2
F03	Mm.2893	NM_010927	Nos2	Nitric oxide synthase 2, inducible
F04	Mm.324393	NM_001083906	Nr3c2	Nuclear receptor subfamily 3, group C, member 2
F05	Mm.266867	NM_011044	Pck1	Phosphoenolpyruvate carboxykinase 1, cytosolic
F06	Mm.343951	NM_008816	Pecam1	Platelet/endothelial cell adhesion molecule 1
F07	Mm.142731	NM_009042	Reg1	Regenerating islet-derived 1
F08	Mm.46360	NM_009043	Reg2	Regenerating islet-derived 2
F09	Mm.21567	NM_013650	S100a8	S100 calcium binding protein A8 (calgranulin A)
F10	Mm.2128	NM_009114	S100a9	S100 calcium binding protein A9 (calgranulin B)
F11	Mm.14277	NM_011315	Saa3	Serum amyloid A 3
F12	Mm.5245	NM_011345	Sele	Selectin, endothelial cell
G01	Mm.196558	NM_009150	Selenbp1	Selenium binding protein 1
G02	Mm.1461	NM_011346	Sell	Selectin, lymphocyte
G03	Mm.290876	NM_013671	Sod2	Superoxide dismutase 2, mitochondrial
G04	Mm.277406	NM_009283	Stat1	Signal transducer and activator of transcription 1
G05	Mm.249934	NM_011486	Stat3	Signal transducer and activator of transcription 3
G06	Mm.258622	NM_019911	Tdo2	Tryptophan 2,3-dioxygenase
G07	Mm.2854	NM_009362	Tff1	Trefoil factor 1
G08	Mm.8245	NM_011593	Timp1	Tissue inhibitor of metalloproteinase 1
G09	Mm.1293	NM_013693	Tnf	Tumor necrosis factor
G10	Mm.20249	NM_018793	Tyk2	Tyrosine kinase 2
G11	Mm.140210	NM_023137	Ubd	Ubiquitin D
G12	Mm.22339	NM_011708	Vwf	Von Willebrand factor homolog
H01	Mm.328431	NM_007393	Actb	Actin, beta
H02	Mm.163	NM_009735	B2m	Beta-2 microglobulin
H03	Mm.343110	NM_008084	Gapdh	Glyceraldehyde-3-phosphate dehydrogenase
H04	Mm.3317	NM_010368	Gusb	Glucuronidase, beta
H05	Mm.2180	NM_008302	Hsp90ab1	Heat shock protein 90 alpha (cytosolic), class B member 1
H06	N/A	SA_00106	MGDC	Mouse 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.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

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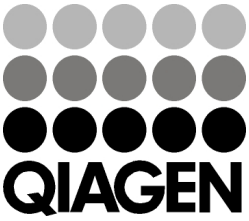

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