RT² Profiler PCR Array (Rotor-Gene® Format)

Rat NFkB Signaling Pathway

Cat. no. 330231 PARN-025ZR

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 NFκB Signaling Pathway RT² Profiler PCR Array profiles the expression of 84 key genes related to NFκB-mediated signal transduction. The array includes genes that encode members of the Rel, NFκB, and IκB families, NFκB-responsive genes, extracellular ligands and receptors that activate the pathway, and kinases and transcription factors that propagate the signal. NFκB-mediated signal transduction has been implicated in the regulation of viral replication, autoimmune diseases, the inflammatory response, tumorigenesis and apoptosis. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes involved in the NFκB signal transduction pathway 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.6319	NM_134432	Agt	Angiotensinogen (serpin peptidase inhibitor, clade A, member 8)
A02	Rn.11422	NM_033230	Akt1	V-akt murine thymoma viral oncogene homolog 1
A03	Rn.105304	NM_001100895	Atf1	Activating transcription factor 1
A04	Rn.9825	NM_031018	Atf2	Activating transcription factor 2
A05	Rn.13007	NM_031328	Bcl10	B-cell CLL/lymphoma 10
A06	Rn.19770	NM_133416	Bcl2a1d	B-cell leukemia/lymphoma 2 related protein A1d
A07	Rn.10323	NM_031535	Bcl2l1	Bcl2-like 1
A08	Rn.23000	NM_001109422	Bcl3	B-cell CLL/lymphoma 3
A09	Rn.64578	NM_023987	Birc3	Baculoviral IAP repeat-containing 3
A10	Rn.138066	NM_001130554	Card10	Caspase recruitment domain family, member 10
A11	Rn.7904	XM_001073551	Card11	Caspase recruitment domain family, member 11
A12	Rn.37508	NM_012762	Casp1	Caspase 1
B01	Rn.54474	NM_022277	Casp8	Caspase 8
B02	Rn.4772	NM_031530	Ccl2	Chemokine (C-C motif) ligand 2
B03	Rn.8019	NM_031116	Ccl5	Chemokine (C-C motif) ligand 5
B04	Rn.25180	NM_134360	Cd40	CD40 molecule, TNF receptor superfamily member 5
B05	Rn.204752	NM_057138	Cflar	CASP8 and FADD-like apoptosis regulator
B06	Rn.23019	NM_001107588	Chuk	Conserved helix-loop-helix ubiquitous kinase
B07	Rn.108128	NM_133381	Crebbp	CREB binding protein
B08	Rn.83632	NM_023981	Csf1	Colony stimulating factor 1 (macrophage)
B09	Rn.44285	XM_340799	Csf2	Colony stimulating factor 2 (granulocyte-macrophage)
B10	Rn.53973	NM_017104	Csf3	Colony stimulating factor 3 (granulocyte)
B11	Rn.37227	NM_031507	Egfr	Epidermal growth factor receptor
B12	Rn.9096	NM_012551	Egr1	Early growth response 1
C01	Rn.10022	NM_019335	Eif2ak2	Eukaryotic translation initiation factor 2-alpha kinase 2
C02	Rn.2609	NM_012950	F2r	Coagulation factor II (thrombin) receptor
C03	Rn.16183	NM_152937	Fadd	Fas (TNFRSF6)-associated via death domain
C04	Rn.9725	NM_012908	Faslg	Fas ligand (TNF superfamily, member 6)
C05	Rn.103750	NM_022197	Fos	FBJ osteosarcoma oncogene
C06	Rn.3160	NM_012580	Hmox1	Heme oxygenase (decycling) 1
C07	Rn.12	NM_012967	Icam1	Intercellular adhesion molecule 1
C08	Rn.196548	NM_001014786	Ifna1	Interferon-alpha 1
C09	Rn.10795	NM_138880	Ifng	Interferon gamma
C10	Rn.19222	NM_053355	Ikbkb	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase beta
C11	Rn.18567	NM_001108854	Ikbke	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase epsilon
C12	Rn.214715	NM_199103	Ikbkg	Inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase gamma
D01	Rn.9868	NM_012854	Il10	Interleukin 10
D02	Rn.12300	NM_017019	Il1a	Interleukin 1 alpha
D03	Rn.9869	NM_031512	Il1b	Interleukin 1 beta
D04	Rn.9758	NM_013123	Il1r1	Interleukin 1 receptor, type I
D05	Rn.22238	NM_001127555	Irak1	Interleukin-1 receptor-associated kinase 1
D06	Rn.17123	NM_001025422	Irak2	Interleukin-1 receptor-associated kinase 2
D07	Rn.61427	NM_001106791	Irak4	Interleukin-1 receptor-associated kinase 4
D08	Rn.6396	NM_012591	Irf1	Interferon regulatory factor 1
D09	Rn.93714	NM_021835	Jun	Jun oncogene
D10	Rn.136874	XM_001080233	LOC687813	Similar to Tnf receptor-associated factor 1
D11	Rn.160577	NM_080769	Lta	Lymphotoxin alpha (TNF superfamily, member 1)
D12	Rn.19329	NM_001008315	Ltbr	Lymphotoxin beta receptor (TNFR superfamily, member 3)
E01	Rn.100064	NM_001100674	Map2k3	Mitogen activated protein kinase kinase 3
E02	Rn.11081	NM_053887	Map3k1	Mitogen activated protein kinase kinase kinase 1
E03	Rn.2592	NM_017347	Mapk3	Mitogen activated protein kinase 3
E04	Rn.37341	NM_198130	Myd88	Myeloid differentiation primary response gene 88
E05	Rn.2411	XM_342346	Nfkb1	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
E06	Rn.204814	NM_001008349	Nfkb2	Nuclear factor of kappa light polypeptide gene enhancer in B-cells 2, p49/p100
E07	Rn.12550	NM_001105720	Nfkbia	Nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha
E08	Rn.4126	NM_001024252	Pcaf	P300/CBP-associated factor

Position	UniGene	GenBank	Symbol	Description
E09	Rn.93075	NM_175765	Psip1	PC4 and SFRS1 interacting protein 1
E10	Rn.33262	NM_012639	Raf1	V-raf-leukemia viral oncogene 1
E11	Rn.106948	XM_223688	Rel	V-rel reticuloendotheliosis viral oncogene homolog (avian)
E12	Rn.19480	NM_199267	Rela	V-rel reticuloendotheliosis viral oncogene homolog A (avian)
F01	Rn.7572	NM_001107350	Ripk1	Receptor (TNFRSF)-interacting serine-threonine kinase 1
F02	Rn.102179	XM_342810	Ripk2	Receptor-interacting serine-threonine kinase 2
F03	Rn.9774	NM_019275	Smad4	SMAD family member 4
F04	Rn.33229	NM_032612	Stat1	Signal transducer and activator of transcription 1
F05	Rn.30683	NM_001106786	Tbk1	TANK-binding kinase 1
F06	Rn.25754	NM_053819	Timp1	TIMP metallopeptidase inhibitor 1
F07	Rn.107212	NM_001172120	Tlr1	Toll-like receptor 1
F08	Rn.46387	NM_198769	Tlr2	Toll-like receptor 2
F09	Rn.15273	NM_198791	Tlr3	Toll-like receptor 3
F10	Rn.14534	NM_019178	Tlr4	Toll-like receptor 4
F11	Rn.163249	NM_207604	Tlr6	Toll-like receptor 6
F12	Rn.92495	NM_198131	Tlr9	Toll-like receptor 9
G01	Rn.2275	NM_012675	Tnf	Tumor necrosis factor (TNF superfamily, member 2)
G02	Rn.105558	NM_001108873	Tnfrsf10b	Tumor necrosis factor receptor superfamily, member 10b
G03	Rn.11119	NM_013091	Tnfrsf1a	Tumor necrosis factor receptor superfamily, member 1a
G04	Rn.83633	NM_130426	Tnfrsf1b	Tumor necrosis factor receptor superfamily, member 1b
G05	Rn.83627	NM_145681	Tnfsf10	Tumor necrosis factor (ligand) superfamily, member 10
G06	N/A	XM_236794	Tnfsf14	Tumor necrosis factor (ligand) superfamily, member 14
G07	Rn.137040	NM_001109668	Tollip	Toll interacting protein
G08	Rn.18545	NM_001100480	Tradd	TNFRSF1A-associated via death domain
G09	Rn.105232	NM_001107815	Traf2	Tnf receptor-associated factor 2
G10	Rn.12033	NM_001108724	Traf3	Tnf receptor-associated factor 3
G11	Rn.220435	NM_001107754	Traf6	Tnf receptor-associated factor 6
G12	Rn.17862	NM_001012002	Zap70	Zeta-chain (TCR) associated protein kinase
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.

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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