

RT² Profiler PCR Array (96-Well Format and 384-Well [4 x 96] Format)

Fruit Fly Autophagy

Cat. no. 330231 PADM-084Z

For pathway expression analysis

Format	For use with the following real-time cyclers
RT ² Profiler PCR Array, Format A	Applied Biosystems [®] models 5700, 7000, 7300, 7500, 7700, 7900HT, ViiA™ 7 (96-well block); Bio-Rad [®] models iCycler [®] , iQ™ 5, MyiQ™, MyiQ2; Bio-Rad/MJ Research Chromo4™; Eppendorf [®] Mastercycler [®] ep realplex models 2, 2s, 4, 4s; Stratagene [®] models Mx3005P [®] , Mx3000P [®] ; Takara TP-800
RT ² Profiler PCR Array, Format C	Applied Biosystems models 7500 (Fast block), 7900HT (Fast block), StepOnePlus™, ViiA 7 (Fast block)
RT ² Profiler PCR Array, Format D	Bio-Rad CFX96™; Bio-Rad/MJ Research models DNA Engine Opticon [®] , DNA Engine Opticon 2; Stratagene Mx4000 [®]
RT ² Profiler PCR Array, Format E	Applied Biosystems models 7900HT (384-well block), ViiA 7 (384-well block); Bio-Rad CFX384™
RT ² Profiler PCR Array, Format F	Roche [®] LightCycler [®] 480 (96-well block)
RT ² Profiler PCR Array, Format G	Roche LightCycler 480 (384-well block)
RT ² Profiler PCR Array, Format H	Fluidigm [®] BioMark™



Description

The fruit fly Autophagy RT² Profiler PCR Array profiles the expression of 84 key genes involved in autophagy, an intracellular catabolic process that destroys a cell's own damaged proteins and organelles via the lysosome. Autophagy has been shown to play roles in a wide variety of normal physiological processes including energy metabolism, organelle turnover, growth regulation, and aging. Impaired autophagy can lead to diseases such as cardiomyopathy and cancer. The array includes genes that encode components of the molecular machinery and key regulators modulating autophagy in response to both extracellular and intracellular signals. Using real-time PCR, you can easily and reliably analyze the expression of a focused panel of genes involved in autophagy with this array.

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

Shipping and storage

RT² Profiler PCR Arrays in formats A, C, D, E, F, and G are shipped at ambient temperature, on dry ice, or blue ice packs depending on destination and accompanying products. RT² Profiler PCR Arrays in format H are shipped on dry ice or blue ice packs.

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 (96-well)

For 384-well 4 x 96 PCR arrays, genes are present in a staggered format. Refer to the *RT² Profiler PCR Array Handbook* for layout.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Acn	Act5C	Akt1	AMPKalpha	app	Atg1	Atg10	Atg101	Atg12	Atg13	Atg14	Atg16
B	Atg17	Atg18a	Atg18b	Atg2	Atg3	Atg4a	Atg4b	Atg5	Atg6	Atg7	Atg8a	Atg8b
C	Atg9	Bl-1	Bruce	bsk	Buffy	cac	cathD	Ccz1	CG1598	CG4025	cln3	comt
D	ctp	CtsB1	Dcp-1	debcl	desat1	DJ-1alpha	dj-1beta	Dlc90F	drpr	elf4G	erna	Fadd
E	fas	HDAC6	Hmt-1	Hrs	Hsc70-1	Hsp83	htt	IP3K2	kibra	Lamp1	Lerp	Mtor
F	Npc1a	NPC1b	p38a	p38b	p53	park	pcm	Pi3K59F	Pi3K92E	Pink1	Psn	Pten
G	Rbf	Rbf2	S6k	scry	sesB	Uba1	Uvrag	Vps13	Vps16A	Vps28	Vps35	Vps39
H	Act42A	Gepdh1	Rpl32	SdhA	Tbp	DGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene table: RT² Profiler PCR Array

Position	UniGene	GenBank	Symbol	Description
A01	Dm.2091	NM_136091	Acn	Hook-like
A02	Dm.2951	NM_001014725	Act5C	Actin 5C
A03	Dm.1219	NM_169705	Akt1	CG4006 gene product from transcript CG4006-RA
A04	Dm.3013	NM_057965	AMPKalpha	SNF1A/AMP-activated protein kinase
A05	Dm.5785	NM_001144464	app	Approximated
A06	Dm.11426	NM_140344	Atg1	Autophagy-specific gene 1
A07	Dm.23226	NM_001103745	Atg10	CG12821 gene product from transcript CG12821-RB
A08	Dm.33435	NM_133098	Atg101	CG7053 gene product from transcript CG7053-RA
A09	Dm.27131	NM_140294	Atg12	Autophagy-specific gene 12
A10	Dm.3718	NM_141539	Atg13	Autophagy-specific gene 13
A11	Dm.4449	NM_143412	Atg14	CG11877 gene product from transcript CG11877-RA
A12	Dm.20800	NM_170432	Atg16	CG31033 gene product from transcript CG31033-RC
B01	Dm.17168	NM_206434	Atg17	CG1347 gene product from transcript CG1347-RB
B02	Dm.883	NM_139927	Atg18a	Autophagy-specific gene 18
B03	Dm.483	NM_136256	Atg18b	CG8678 gene product from transcript CG8678-RA
B04	Dm.827	NM_139491	Atg2	Autophagy-specific gene 2
B05	Dm.11393	NM_140802	Atg3	CG6877 gene product from transcript CG6877-RA
B06	Dm.13477	NM_134719	Atg4a	Autophagy-specific gene 4
B07	Dm.2122	NM_142195	Atg4b	CG6194 gene product from transcript CG6194-RA
B08	Dm.33486	NM_132162	Atg5	Autophagy-specific gene 5
B09	Dm.20240	NM_142952	Atg6	Autophagy-specific gene 6
B10	Dm.5217	NM_137506	Atg7	Autophagy-specific gene 7
B11	Dm.20907	NM_167245	Atg8a	Autophagy-specific gene 8a
B12	Dm.2330	NM_142392	Atg8b	Autophagy-specific gene 8b
C01	Dm.651	NM_137270	Atg9	Autophagy-specific gene 9
C02	Dm.7527	NM_139948	Bl-1	CG7188 gene product from transcript CG7188-RA
C03	Dm.13678	NM_141738	Bruce	CG6303 gene product from transcript CG6303-RA
C04	Dm.1448	NM_164900	bsk	Basket
C05	Dm.3310	NM_078978	Buffy	CG8238 gene product from transcript CG8238-RA
C06	Dm.2395	NM_001014732	cac	Cacophony
C07	Dm.3355	NM_143756	cathD	CG1548 gene product from transcript CG1548-RA
C08	Dm.5809	NM_139578	Ccz1	CG14980 gene product from transcript CG14980-RB
C09	Dm.6903	NM_136452	CG1598	CG1598 gene product from transcript CG1598-RA
C10	Dm.12243	NM_130623	CG4025	CG4025 gene product from transcript CG4025-RA
C11	Dm.4954	NM_140754	cln3	CG5582 gene product from transcript CG5582-RA
C12	Dm.1772	NM_080138	comt	Comatose
D01	Dm.5892	NM_080336	ctp	Cut up
D02	Dm.3926	NM_132692	CtsB1	CG10992 gene product from transcript CG10992-RA
D03	Dm.4849	NM_057626	Dcp-1	Death caspase-1
D04	Dm.1719	NM_176098	debcl	Death executioner Bcl-2 homologue
D05	Dm.7712	NM_144474	desat1	CG5887 gene product from transcript CG5887-RA
D06	Dm.30975	NM_137072	DJ-1alpha	CG6646 gene product from transcript CG6646-RA
D07	Dm.3914	NM_143568	dj-1beta	CG1349 gene product from transcript CG1349-RA
D08	Dm.2045	NM_058008	Dlc90F	Dynein light chain 90F
D09	Dm.3167	NM_058102	drpr	Draper

Position	UniGene	GenBank	Symbol	Description
D10	Dm.7136	NM_001103382	eIF4G	Eukaryotic translation initiation factor 4G
D11	Dm.10871	NM_001038969	ema	CG12753 gene product from transcript CG12753-RB
D12	Dm.1273	NM_142749	Fadd	CG12297 gene product from transcript CG12297-RA
E01	N/A	NM_079007	fas	Faint sausage
E02	Dm.3238	NM_132789	HDAC6	CG6170 gene product from transcript CG6170-RA
E03	Dm.1214	NM_142246	Hmt-1	Heavy metal tolerance factor 1
E04	Dm.274	NM_080360	Hrs	Hepatocyte growth factor regulated tyrosine kinase substrate
E05	Dm.1176	NM_079339	Hsc70-1	Heat shock protein cognate 1
E06	Dm.2800	NM_079175	Hsp83	Heat shock protein 83
E07	Dm.1357	NM_143372	htt	Huntingtin
E08	Dm.6619	NM_001103499	IP3K2	Inositol 1,4,5-triphosphate kinase 2
E09	N/A	NM_001038966	kibra	Kibra ortholog
E10	Dm.7734	NM_136267	Lamp1	CG3305 gene product from transcript CG3305-RA
E11	Dm.16426	NM_170288	Lerp	Lysosomal enzyme receptor protein
E12	Dm.4634	NM_057719	Mtor	Megator
F01	N/A	NM_135513	Npc1a	Niemann-Pick type C-1a
F02	N/A	NM_134573	NPC1b	Niemann-Pick type C-1b
F03	Dm.2996	NM_057815	p38a	CG5475 gene product from transcript CG5475-RB
F04	Dm.2953	NM_058013	p38b	CG7393 gene product from transcript CG7393-RA
F05	Dm.3257	NM_206544	p53	CG33336 gene product from transcript CG33336-RB
F06	Dm.20129	NM_168884	park	Parkin
F07	Dm.7395	NM_078684	pcm	Pacman
F08	Dm.1676	NM_057785	Pi3K59F	Phosphatidylinositol 3 kinase 59F
F09	Dm.1876	NM_142645	Pi3K92E	CG4141 gene product from transcript CG4141-RB
F10	Dm.56	NM_001031878	Pink1	PTEN-induced putative kinase 1
F11	Dm.3254	NM_079460	Psn	Presenilin
F12	Dm.1417	NM_058074	Pten	CG5671 gene product from transcript CG5671-RB
G01	Dm.4654	NM_080297	Rbf	Retinoblastoma-family protein
G02	Dm.2418	NM_079648	Rbf2	Retinoblastoma-family protein 2
G03	Dm.856	NM_079217	S6k	RPS6-p70-protein kinase
G04	Dm.6825	NM_139729	scny	Scrawny
G05	Dm.21507	NM_078554	sesB	Stress-sensitive B
G06	Dm.5488	NM_057962	Uba1	Ubiquitin activating enzyme 1
G07	Dm.419	NM_135788	Uvrag	CG6116 gene product from transcript CG6116-RA
G08	Dm.18802	NM_136455	Vps13	Vacuolar protein sorting 13
G09	Dm.5838	NM_141620	Vps16A	Vacuolar protein sorting 16A
G10	Dm.3935	NM_143796	Vps28	Vacuolar protein sorting 28
G11	Dm.9290	NM_137807	Vps35	Vacuolar protein sorting 35
G12	Dm.1238	NM_142445	Vps39	CG7146 gene product from transcript CG7146-RA
H01	Dm.7040	NM_078901	Act42A	Actin 42A
H02	Dm.23224	NM_001038847	Gapdh1	Glyceraldehyde 3 phosphate dehydrogenase 1
H03	Dm.7621	NM_079843	Rpl32	Ribosomal protein L32
H04	Dm.4591	NM_057862	SdhA	Succinate dehydrogenase A
H05	Dm.4490	NM_079081	Tbp	TATA binding protein
H06	N/A fly	SA_00146	DGDC	Fly 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.
RT ² First Strand Kit (12)	Enzymes and reagents for cDNA synthesis	330401
RT ² SYBR Green qPCR Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with real-time cyclers that do not require a reference dye, including: Bio-Rad models CFX96, CFX384, DNA Engine Opticon 2; Bio-Rad/MJ Research Chromo4; Roche LightCycler 480 (96-well and 384-well); all other cyclers	330500
RT ² SYBR Green ROX™ qPCR Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with the following real-time cyclers: Applied Biosystems models 5700, 7000, 7300, 7500 [Standard and FAST], 7700, 7900HT 96-well block [Standard and FAST] and 384-well block, StepOnePlus; Eppendorf Mastercycler ep realplex models 2, 2S, 4, 4S; Stratagene models Mx3000P, Mx3005P, Mx4000; Takara TP-800	330520
RT ² SYBR Green Fluor qPCR Mastermix (2)*	For 2 x 96 assays in 96-well plates; suitable for use with the following real-time cyclers: Bio-Rad models iCycler, iQ5, MyiQ, MyiQ2	330510

* 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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