

RT² Profiler™ PCR Array:

Mouse Angiogenic Growth Factors & Angiogenesis Inhibitors

Catalog Number

PAMM-072A

PAMM-072C

PAMM-072D

PAMM-072E

PAMM-072F

PAMM-072G

For Real-Time Instruments:

ABI Standard Blocks; Bio-Rad iCycler, MyiQ, and (MJ Research) Chromo 4; and Stratagene Mx3005p, Mx3000p

ABI 7500 and 7900HT FAST 96-Well Blocks, ABI StepOnePlus

Bio-Rad (MJ Research) Opticon and Opticon 2, Stratagene Mx4000

ABI 7900HT 384-Well Block

Roche LightCycler 480 96-well Block

Roche LightCycler 480 384-well Block

Description

The Mouse Angiogenesis Growth Factors & Angiogenesis Inhibitors RT² Profiler PCR Array profiles the expression of 84 growth factors and inhibitors related to angiogenesis. This array contains the growth factors, cytokines, and chemokines that promote the biogenesis of new blood vessels and the genes that encode inhibitors of this process. Using real-time PCR, you can easily and reliably analyze expression of a focused panel of genes related to the promotion and inhibition of angiogenesis with this array.

Functional Gene Groupings**Angiogenic Growth Factors and Related Proteins:**

Growth Factors: Csf3, Ereg, Fgf1, Fgf2, Hgf, Lep, Mdk, Pdgfb, Pgf, Ptn, Tgfa, Vegfa.

Cytokines and Chemokines: Csf3, Grn, Tnf.

Other Genes Positively Regulating Angiogenesis: Aggf1, Amot, Angpt1, Angptl3, Angptl4, Arts1, Btg1, Cited1, Edil3, Egfl7, Erbb2, Foxf1a, Foxm1, Fst, Glmn, Hey1, Hey2, Kdr, Myocd, Ntrk2, Plf, Ptpnj, Qk, Rasa1, Rhob, Rnase4, Runx1, Shh, Smo, Tdgf1, Wars2, Wt1.

Angiogenesis Inhibitors:

Cytokines, Chemokines and Growth Factors: Cxcl10, Cxcl2, Cxcl4, Ifnb1, Ifng, Il12a, Il12b, Tgfb1.

Other Genes Negatively Regulating Angiogenesis: Adamts1, Amot, Angpt2, Angptl1, Bai1, Cd55, Cd59b, Cga, Chga, Col18a1, Col4a3, Crhr2, Fn1, Hpse, Mllt7, Plfr, Plg, Prl, Rnh1, Serpinc1, Serpine1, Serpinf1, Stab1, Thbs1, Tie1, Timp1, Timp2, Timp3, Timp4, Tnni2, Tnni3.

Storage Conditions

Please check the kit components immediately after you receive this package. We are only responsible for missing items reported within two (2) business days of receipt.

Storage Conditions: PCR Arrays are shipped at ambient temperature. Keep plates at -20 °C for long-term storage.

NOTE: Be sure that you have the correct PCR Array format for your instrument before starting the experiment.

Product Specification Sheet

References

1. Kuwano, M., et al., *Angiogenesis factors*. Intern Med, 2001. **40**(7): p. 565-72.
2. Nyberg, P., L. Xie, and R. Kalluri, *Endogenous Inhibitors of Angiogenesis*. 2005. p. 3967-3979.
3. Carmeliet, P., *Angiogenesis in life, disease and medicine*. Nature, 2005. **438**(7070): p. 932-936.
4. Kilarski, W.W. and A. Bikfalvi, *Recent Developments in Tumor Angiogenesis*. Current Pharmaceutical Biotechnology, 2007. **8**: p. 3-9.
5. Lamalice, L., F. Le Boeuf, and J. Huot, *Endothelial Cell Migration During Angiogenesis*. 2007. p. 782-794.

Product Specification Sheet

Array Layout:

Mouse Angiogenic Growth Factors & Angiogenesis Inhibitors RT² Profiler™ PCR Array

	1	2	3	4	5	6	7	8	9	10	11	12
A	Adams1	Aggf1	Amot	Angpt1	Angpt2	Angpt1	Angpt3	Angpt4	Arts1	Bai1	Btg1	Cd55
B	Cd59b	Cga	Chga	Cited1	Col18a1	Col4a3	Crhr2	Csf3	Cxcl10	Cxcl2	Cxcl4	Edil3
C	Egfl7	ErbB2	Ereg	Fgf1	Fgf2	Fn1	Foxf1a	Foxm1	Fst	Glmn	Grn	Hey1
D	Hey2	Hgf	Hpse	Ifnb1	Ifng	Il12a	Il12b	Kdr	Lep	Mdk	Mlt7	Myocd
E	Ntrk2	Pdgfb	Pgf	Pif	Pifr	Plg	Prl	Ptn	Ptprij	Qk	Rasa1	Rhob
F	Rnase4	Rnh1	Runx1	Serpinc1	Serpine1	Serpinf1	Shh	Smo	Stab1	Tdgf1	Tgfa	Tgfb1
G	Thbs1	Tie1	Timp1	Timp2	Timp3	Timp4	Tnf	Tnni2	Tnni3	Vegfa	Wars2	Wt1
H	Gusb	Hprt1	Hsp90ab1	Gapdh	Actb	MGDC	RTC	RTC	RTC	PPC	PPC	PPC

Gene Table

Position	UniGene	GenBank	Symbol	Description
A01	Mm.1421	NM_009621	Adams1	A disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 1
A02	Mm.36785	NM_025630	Aggf1	Angiogenic factor with G patch and FHA domains 1
A03	Mm.100068	NM_153319	Amot	Angiomotin
A04	Mm.309336	NM_009640	Angpt1	Angiopoietin 1
A05	Mm.439874	NM_007426	Angpt2	Angiopoietin 2
A06	Mm.389206	NM_028333	Angpt1	Angiopoietin-like 1
A07	Mm.28341	NM_013913	Angpt3	Angiopoietin-like 3
A08	Mm.196189	NM_020581	Angpt4	Angiopoietin-like 4
A09	Mm.83526	NM_030711	Arts1	Type 1 tumor necrosis factor receptor shedding aminopeptidase regulator
A10	Mm.43133	NM_174991	Bai1	Brain-specific angiogenesis inhibitor 1
A11	Mm.272183	NM_007569	Btg1	B-cell translocation gene 1, anti-proliferative
A12	Mm.101591	NM_010016	Cd55	CD55 antigen
B01	Mm.359026	NM_181858	Cd59b	CD59b antigen
B02	Mm.1361	NM_009889	Cga	Glycoprotein hormones, alpha subunit
B03	Mm.4137	NM_007693	Chga	Chromogranin A
B04	Mm.2390	NM_007709	Cited1	Cbp/p300-interacting transactivator with Glu/Asp-rich carboxy-terminal domain 1
B05	Mm.4352	NM_009929	Col18a1	Procollagen, type XVIII, alpha 1
B06	Mm.389135	NM_007734	Col4a3	Procollagen, type IV, alpha 3
B07	Mm.236081	NM_009953	Crhr2	Corticotropin releasing hormone receptor 2
B08	Mm.1238	NM_009971	Csf3	Colony stimulating factor 3 (granulocyte)
B09	Mm.877	NM_021274	Cxcl10	Chemokine (C-X-C motif) ligand 10
B10	Mm.4979	NM_009140	Cxcl2	Chemokine (C-X-C motif) ligand 2
B11	Mm.332490	NM_019932	Cxcl4	Chemokine (C-X-C motif) ligand 4
B12	Mm.125580	NM_001037987	Edil3	EGF-like repeats and discoidin I-like domains 3
C01	Mm.268933	NM_178444	Egfl7	EGF-like domain 7
C02	Mm.290822	NM_001003817	ErbB2	V-erb-b2 erythroblastic leukemia viral oncogene homolog 2, neuro/glioblastoma derived oncogene homolog (avian)
C03	Mm.4791	NM_007950	Ereg	Epiregulin
C04	Mm.241282	NM_010197	Fgf1	Fibroblast growth factor 1
C05	Mm.57094	NM_008006	Fgf2	Fibroblast growth factor 2
C06	Mm.193099	NM_010233	Fn1	Fibronectin 1
C07	Mm.33897	NM_010426	Foxf1a	Forkhead box F1a
C08	Mm.42148	NM_008021	Foxm1	Forkhead box M1
C09	Mm.425842	NM_008046	Fst	Follistatin
C10	Mm.41417	NM_133248	Glmn	Glomulin, FKBP associated protein
C11	Mm.1568	NM_008175	Grn	Granulin
C12	Mm.29581	NM_010423	Hey1	Hairy/enhancer-of-split related with YRPW motif 1
D01	Mm.103573	NM_013904	Hey2	Hairy/enhancer-of-split related with YRPW motif 2
D02	Mm.267078	NM_010427	Hgf	Hepatocyte growth factor
D03	Mm.265786	NM_152803	Hpse	Heparanase
D04	Mm.1245	NM_010510	Ifnb1	Interferon beta 1, fibroblast
D05	Mm.240327	NM_008337	Ifng	Interferon gamma
D06	Mm.103783	NM_008351	Il12a	Interleukin 12A
D07	Mm.239707	NM_008352	Il12b	Interleukin 12B
D08	Mm.285	NM_010612	Kdr	Kinase insert domain protein receptor
D09	Mm.277072	NM_008493	Lep	Leptin
D10	Mm.906	NM_010784	Mdk	Midkine
D11	Mm.371606	NM_018789	Mlt7	Myeloid/lymphoid or mixed lineage-leukemia translocation to 7 homolog (Drosophila)
D12	Mm.32257	NM_145136	Myocd	Myocardin
E01	Mm.130054	NM_008745	Ntrk2	Neurotrophic tyrosine kinase, receptor, type 2

Product Specification Sheet

Position	UniGene	GenBank	Symbol	Description
E02	Mm.144089	NM_011057	Pdgfb	Platelet derived growth factor, B polypeptide
E03	Mm.4809	NM_008827	Pgf	Placental growth factor
E04	Mm.305393	NM_031191	Plf	Proliferin
E05	Mm.3258	NM_011120	Plfr	Proliferin related protein
E06	Mm.971	NM_008877	Plg	Plasminogen
E07	Mm.1270	NM_011164	Prl	Prolactin
E08	Mm.279690	NM_008973	Ptn	Pleiotrophin
E09	Mm.330393	NM_008982	Ptprj	Protein tyrosine phosphatase, receptor type, J
E10	Mm.384135	NM_021881	Qk	Quaking
E11	Mm.259653	NM_145452	Rasa1	RAS p21 protein activator 1
E12	Mm.687	NM_007483	Rhob	Ras homolog gene family, member B
F01	Mm.202665	NM_021472	Rnase4	Ribonuclease, RNase A family 4
F02	Mm.279485	NM_145135	Rnh1	Ribonuclease/angiogenin inhibitor 1
F03	Mm.4081	NM_009821	Runx1	Runt related transcription factor 1
F04	Mm.260770	NM_080844	Serpinc1	Serine (or cysteine) peptidase inhibitor, clade C (antithrombin), member 1
F05	Mm.250422	NM_008871	Serpine1	Serine (or cysteine) peptidase inhibitor, clade E, member 1
F06	Mm.2044	NM_011340	Serpinf1	Serine (or cysteine) peptidase inhibitor, clade F, member 1
F07	Mm.57202	NM_009170	Shh	Sonic hedgehog
F08	Mm.29279	NM_176996	Smo	Smoothened homolog (Drosophila)
F09	Mm.220821	NM_138672	Stab1	Stabilin 1
F10	Mm.5090	NM_011562	Tdgf1	Teratocarcinoma-derived growth factor
F11	Mm.137222	NM_031199	Tgfa	Transforming growth factor alpha
F12	Mm.248380	NM_011577	Tgfb1	Transforming growth factor, beta 1
G01	Mm.4159	NM_011580	Thbs1	Thrombospondin 1
G02	Mm.4345	NM_011587	Tie1	Tyrosine kinase receptor 1
G03	Mm.8245	NM_011593	Timp1	Tissue inhibitor of metalloproteinase 1
G04	Mm.206505	NM_011594	Timp2	Tissue inhibitor of metalloproteinase 2
G05	Mm.4871	NM_011595	Timp3	Tissue inhibitor of metalloproteinase 3
G06	Mm.255607	NM_080639	Timp4	Tissue inhibitor of metalloproteinase 4
G07	Mm.1293	NM_013693	Tnf	Tumor necrosis factor
G08	Mm.39469	NM_009405	Tnni2	Troponin I, skeletal, fast 2
G09	Mm.27674	NM_009406	Tnni3	Troponin I, cardiac
G10	Mm.282184	NM_009505	Vegfa	Vascular endothelial growth factor A
G11	Mm.316754	NM_027462	Wars2	Tryptophanyl tRNA synthetase 2 (mitochondrial)
G12	Mm.389339	NM_144783	Wt1	Wilms tumor homolog
H01	Mm.3317	NM_010368	Gusb	Glucuronidase, beta
H02	Mm.299381	NM_013556	Hprt1	Hypoxanthine guanine phosphoribosyl transferase 1
H03	Mm.2180	NM_008302	Hsp90ab1	Heat shock protein 90kDa alpha (cytosolic), class B member 1
H04	Mm.343110	NM_008084	Gapdh	Glyceraldehyde-3-phosphate dehydrogenase
H05	Mm.328431	NM_007393	Actb	Actin, beta, cytoplasmic
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