QuantiNova® LNA® Probe PCR Focus Panels (Rotor-Gene® Format)

Human MAP Kinase Signaling Pathway

Cat. no. 249955 UPHS-061ZR

For study focus gene expression analysis

Shipping and storage

QuantiNova LNA Probe PCR Focus Panels are shipped at room temperature. Immediately upon receipt, they should be stored protected from light at 2–8°C for short term storage or at –30°C to –15°C for long time storage. Under these conditions, all components are stable for at least 12 months.

Note: Open the package and store the products appropriately immediately upon receipt.

For optimal performance, QuantiNova LNA Probe PCR Focus Panels should be used together with the QuantiNova Reverse Transcription Kit for cDNA synthesis and the QuantiNova Probe PCR Kit (Mastermix) for PCR.

Panel layout (Rotor-Gene): QuantiNova LNA Probe PCR Focus Panel

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. Refer to the QuantiNova LNA Probe PCR Handbook at **www.qiagen.com** for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	ARAF	ATF2	BRAF	CCNA1	CCNA2	CCNB1	CCNB2	CCND1	CCND2	CCND3	CCNE1	CDC42
B	CDK2	CDK4	CDK6	CDKN1A	CDKN1B	CDKN1C	CDKN2A	CDKN2B	CDKN2C	CDKN2D	CHUK	COL1A1
C	CREB1	CREBBP	DLK1	E2F1	EGFR	EGR1	ELK1	ETS1	ETS2	FOS	GRB2	HRAS
D	HSPA5	HSPB1	JUN	KRAS	KSR1	LAMTOR3	MAP2K1	MAP2K2	MAP2K3	MAP2K4	MAP2K5	MAP2K6
E	MAP2K7	MAP3K1	MAP3K2	MAP3K3	MAP3K4	MAP4K1	MAPK1	MAPK10	MAPK11	MAPK12	MAPK13	MAPK14
F	MAPK3	MAPK6	MAPK7	MAPK8	MAPK8IP2	MAPK9	MAPKAPK2	MAPKAPK3	MAX	MEF2C	MKNK1	MOS
G	MST1	MYC	NFATC4	NRAS	PAK1	PRDX6	RAC1	RAF1	RB1	SFN	SMAD4	TP53
H	ACTB	B2M	GAPDH	HPRT1	RPLP0	HGDC	QIC	QIC	QIC	PPC	PPC	PPC

Gene table: QuantiNova LNA Probe PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	UPFH0579274	ENST00000290277.10	ARAF	ENSG00000078061	A-Raf proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 646
A02	UPFH1132243	ENST00000426833.7	ATF2	ENSG00000115966	activating transcription factor 2 Source HGNC Symbol Acc HGNC 784
A03	UPFH0559252	ENST00000646891.1	BRAF	ENSG00000157764	B-Raf proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 1097
A04	UPFH0417476	ENST00000255465.7	CCNA1	ENSG00000133101	cyclin A1 Source HGNC Symbol Acc HGNC 1577
A05	UPFH0122485	ENST00000618014.1	CCNA2	ENSG00000145386	cyclin A2 Source HGNC Symbol Acc HGNC 1578
A06	UPFH1132293	ENST00000505500.5	CCNB1	ENSG00000134057	cyclin B1 Source HGNC Symbol Acc HGNC 1579
A07	UPFH1132294	ENST00000621385.1	CCNB2	ENSG00000157456	cyclin B2 Source HGNC Symbol Acc HGNC 1580
A08	UPFH0430337	ENST00000227507.2	CCND1	ENSG00000110092	cyclin D1 Source HGNC Symbol Acc HGNC 1582
A09	UPFH1132296	ENST00000261254.8	CCND2	ENSG00000118971	cyclin D2 Source HGNC Symbol Acc HGNC 1583
A10	UPFH0023687	ENST00000372991.8	CCND3	ENSG00000112576	cyclin D3 Source HGNC Symbol Acc HGNC 1585
A11	UPFH1132297	ENST00000444983.6	CCNE1	ENSG00000105173	cyclin E1 Source HGNC Symbol Acc HGNC 1589
A12	UPFH0571108	ENST00000400259.5	CDC42	ENSG00000070831	cell division cycle 42 Source HGNC Symbol Acc HGNC 1736
B01	UPFH1132961	ENST00000266970.9	CDK2	ENSG00000123374	cyclin dependent kinase 2 Source HGNC Symbol Acc HGNC 1771
B02	UPFH0291148	ENST00000549606.5	CDK4	ENSG00000135446	cyclin dependent kinase 4 Source HGNC Symbol Acc HGNC 1773
B03	UPFH0172654	ENST00000265734.8	CDK6	ENSG00000105810	cyclin dependent kinase 6 Source HGNC Symbol Acc HGNC 1777
B04	UPFH0312181	ENST00000244741.9	CDKN1A	ENSG00000124762	cyclin dependent kinase inhibitor 1A Source HGNC Symbol Acc HGNC 1784
B05	UPFH1132964	ENST00000228872.9	CDKN1B	ENSG00000111276	cyclin dependent kinase inhibitor 1B Source HGNC Symbol Acc HGNC 1785
B06	UPFH0327918	ENST00000440480.7	CDKN1C	ENSG00000129757	cyclin dependent kinase inhibitor 1C Source HGNC Symbol Acc HGNC 1786
B07	UPFH0246593	ENST00000494262.5	CDKN2A	ENSG00000147889	cyclin dependent kinase inhibitor 2A Source HGNC Symbol Acc HGNC 1787
B08	UPFH0150846	ENST00000579591.1	CDKN2B	ENSG00000147883	cyclin dependent kinase inhibitor 2B Source HGNC Symbol Acc HGNC 1788
B09	UPFH0543408	ENST00000371761.4	CDKN2C	ENSG00000123080	cyclin dependent kinase inhibitor 2C Source HGNC Symbol Acc HGNC 1789
B10	UPFH0295297	ENST00000335766.2	CDKN2D	ENSG00000129355	cyclin dependent kinase inhibitor 2D Source HGNC Symbol Acc HGNC 1790
B11	UPFH1132316	ENST00000370397.8	CHUK	ENSG00000213341	conserved helix-loop-helix ubiquitous kinase Source HGNC Symbol Acc HGNC 1974
B12	UPFH0361104	ENST00000225964.9	COL1A1	ENSG00000108821	collagen type I alpha 1 chain Source HGNC Symbol Acc HGNC 2197
C01	UPFH0199960	ENST00000480189.5	CREB1	ENSG00000118260	cAMP responsive element binding protein 1 Source HGNC Symbol Acc HGNC 2345
C02	UPFH0338543	ENST00000573517.6	CREBBP	ENSG00000005339	CREB binding protein Source HGNC Symbol Acc HGNC 2348
C03	UPFH0142974	ENST00000556051.1	DLK1	ENSG00000185559	delta like non-canonical Notch ligand 1 Source HGNC Symbol Acc HGNC 2907
C04	UPFH1132375	ENST00000343380.6	E2F1	ENSG00000101412	E2F transcription factor 1 Source HGNC Symbol Acc HGNC 3113
C05	UPFH1132381	ENST00000420316.6	EGFR	ENSG00000146648	epidermal growth factor receptor Source HGNC Symbol Acc HGNC 3236
C06	UPFH0558832	ENST00000239938.5	EGR1	ENSG00000120738	early growth response 1 Source HGNC Symbol Acc HGNC 3238
C07	UPFH0614738	ENST00000376983.8	ELK1	ENSG00000126767	ELK1, ETS transcription factor Source HGNC Symbol Acc HGNC 3321
C08	UPFH0570530	ENST00000392668.8	ETS1	ENSG00000134954	ETS proto-oncogene 1, transcription factor Source HGNC Symbol Acc HGNC 3488
C09	UPFH1132389	ENST00000360214.7	ETS2	ENSG00000157557	ETS proto-oncogene 2, transcription factor Source HGNC Symbol Acc HGNC 3489
C10	UPFH1132401	ENST00000555242.1	FOS	ENSG00000170345	Fos proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 3796
		ENST00000392		ENSG00000	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	UPFH1132426	564.5	GRB2	177885	growth factor receptor bound protein 2 Source HGNC Symbol Acc HGNC 4566
C12	UPFH1132981	ENST00000311189.8	HRAS	ENSG00000174775	HRas proto-oncogene, GTPase Source HGNC Symbol Acc HGNC 5173
D01	UPFH1132459	ENST00000324460.7	HSPA5	ENSG00000044574	heat shock protein family A (Hsp70) member 5 Source HGNC Symbol Acc HGNC 5238
D02	UPFH1139042	ENST00000248553.7	HSPB1	ENSG00000106211	heat shock protein family B (small) member 1 Source HGNC Symbol Acc HGNC 5246
D03	UPFH0569765	ENST00000371222.3	JUN	ENSG00000177606	Jun proto-oncogene, AP-1 transcription factor subunit Source HGNC Symbol Acc HGNC 6204
D04	UPFH0376060	ENST00000557334.5	KRAS	ENSG00000133703	KRAS proto-oncogene, GTPase Source HGNC Symbol Acc HGNC 6407
D05	UPFH0344510	ENST00000398982.6	KSR1	ENSG00000141068	kinase suppressor of ras 1 Source HGNC Symbol Acc HGNC 6465
D06	UPFH0483476	ENST00000515100.1	LAMTOR3	ENSG00000109270	late endosomal/lysosomal adaptor, MAPK and MTOR activator 3 Source HGNC Symbol Acc HGNC 15606
D07	UPFH1132932	ENST00000307102.9	MAP2K1	ENSG00000169032	mitogen-activated protein kinase kinase 1 Source HGNC Symbol Acc HGNC 6840
D08	UPFH0606297	ENST00000599021.1	MAP2K2	ENSG00000126934	mitogen-activated protein kinase kinase 2 Source HGNC Symbol Acc HGNC 6842
D09	UPFH0309340	ENST00000361818.9	MAP2K3	ENSG00000034152	mitogen-activated protein kinase kinase 3 Source HGNC Symbol Acc HGNC 6843
D10	UPFH1132531	ENST00000353533.10	MAP2K4	ENSG00000065559	mitogen-activated protein kinase kinase 4 Source HGNC Symbol Acc HGNC 6844
D11	UPFH0227499	ENST00000439036.5	MAP2K5	ENSG00000137764	mitogen-activated protein kinase kinase 5 Source HGNC Symbol Acc HGNC 6845
D12	UPFH0154305	ENST00000586641.5	MAP2K6	ENSG00000108984	mitogen-activated protein kinase kinase 6 Source HGNC Symbol Acc HGNC 6846
E01	UPFH1124074	ENST00000468058.1	MAP2K7	ENSG00000076984	mitogen-activated protein kinase kinase 7 Source HGNC Symbol Acc HGNC 6847
E02	UPFH1132532	ENST00000399503.4	MAP3K1	ENSG00000095015	mitogen-activated protein kinase kinase kinase 1 Source HGNC Symbol Acc HGNC 6848
E03	UPFH0130844	ENST00000409947.5	MAP3K2	ENSG00000169967	mitogen-activated protein kinase kinase kinase 2 Source HGNC Symbol Acc HGNC 6854
E04	UPFH0124282	ENST00000584573.5	MAP3K3	ENSG00000198909	mitogen-activated protein kinase kinase kinase 3 Source HGNC Symbol Acc HGNC 6855
E05	UPFH0200052	ENST00000348824.11	MAP3K4	ENSG00000085511	mitogen-activated protein kinase kinase kinase 4 Source HGNC Symbol Acc HGNC 6856
E06	UPFH0295746	ENST00000591517.5	MAP4K1	ENSG00000104814	mitogen-activated protein kinase kinase kinase kinase 1 Source HGNC Symbol Acc HGNC 6863
E07	UPFH0366815	ENST00000215832.10	MAPK1	ENSG00000100030	mitogen-activated protein kinase 1 Source HGNC Symbol Acc HGNC 6871
E08	UPFH0530550	ENST00000641563.1	MAPK10	ENSG00000109339	mitogen-activated protein kinase 10 Source HGNC Symbol Acc HGNC 6872
E09	UPFH0233655	ENST00000417877.1	MAPK11	ENSG00000185386	mitogen-activated protein kinase 11 Source HGNC Symbol Acc HGNC 6873
E10	UPFH1132533	ENST00000395778.3	MAPK12	ENSG00000188130	mitogen-activated protein kinase 12 Source HGNC Symbol Acc HGNC 6874
E11	UPFH0194573	ENST00000373759.1	MAPK13	ENSG00000156711	mitogen-activated protein kinase 13 Source HGNC Symbol Acc HGNC 6875
E12	UPFH0068247	ENST00000229795.7	MAPK14	ENSG00000112062	mitogen-activated protein kinase 14 Source HGNC Symbol Acc HGNC 6876
F01	UPFH1132534	ENST00000481230.1	MAPK3	ENSG00000102882	mitogen-activated protein kinase 3 Source HGNC Symbol Acc HGNC 6877
F02	UPFH0359567	ENST00000558100.1	MAPK6	ENSG00000069956	mitogen-activated protein kinase 6 Source HGNC Symbol Acc HGNC 6879
F03	UPFH0392476	ENST00000573466.5	MAPK7	ENSG00000166484	mitogen-activated protein kinase 7 Source HGNC Symbol Acc HGNC 6880
F04	UPFH1132535	ENST00000374179.8	MAPK8	ENSG00000107643	mitogen-activated protein kinase 8 Source HGNC Symbol Acc HGNC 6881
F05	UPFH0284754	ENST00000008876.7	MAPK8IP2	ENSG00000008735	mitogen-activated protein kinase 8 interacting protein 2 Source HGNC Symbol Acc HGNC 6883
F06	UPFH0148170	ENST00000397072.7	MAPK9	ENSG00000050748	mitogen-activated protein kinase 9 Source HGNC Symbol Acc HGNC 6886
F07	UPFH0398763	ENST00000294981.8	MAPKAPK2	ENSG00000162889	mitogen-activated protein kinase-activated protein kinase 2 Source HGNC Symbol Acc HGNC 6887
F08	UPFH0036060	ENST00000621469.5	MAPKAPK3	ENSG00000114738	mitogen-activated protein kinase-activated protein kinase 3 Source HGNC Symbol Acc HGNC 6888
F09	UPFH0191124	ENST00000556443.5	MAX	ENSG00000125952	MYC associated factor X Source HGNC Symbol Acc HGNC 6913
F10	UPFH0170268	ENST00000424173.6	MEF2C	ENSG00000081189	myocyte enhancer factor 2C Source HGNC Symbol Acc HGNC 6996

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	UPFH0234693	ENST00000496619.6	MKNK1	ENSG00000079277	MAP kinase interacting serine/threonine kinase 1 Source HGNC Symbol Acc HGNC 7110
F12	UPFH0497427	ENST00000311923.1	MOS	ENSG00000172680	MOS proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 7199
G01	UPFH0032350	ENST00000480268.5	MST1	ENSG00000173531	macrophage stimulating 1 Source HGNC Symbol Acc HGNC 7380
G02	UPFH1132563	ENST00000517291.1	MYC	ENSG00000136997	MYC proto-oncogene, bHLH transcription factor Source HGNC Symbol Acc HGNC 7553
G03	UPFH0189206	ENST00000553879.5	NFATC4	ENSG00000100968	nuclear factor of activated T cells 4 Source HGNC Symbol Acc HGNC 7778
G04	UPFH0189023	ENST00000369535.5	NRAS	ENSG00000213281	NRAS proto-oncogene, GTPase Source HGNC Symbol Acc HGNC 7989
G05	UPFH0310946	ENST00000356341.7	PAK1	ENSG00000149269	p21 (RAC1) activated kinase 1 Source HGNC Symbol Acc HGNC 8590
G06	UPFH1132836	ENST00000340385.6	PRDX6	ENSG00000117592	peroxiredoxin 6 Source HGNC Symbol Acc HGNC 16753
G07	UPFH1132648	ENST00000348035.9	RAC1	ENSG00000136238	Rac family small GTPase 1 Source HGNC Symbol Acc HGNC 9801
G08	UPFH0380839	ENST00000416093.1	RAF1	ENSG00000132155	Raf-1 proto-oncogene, serine/threonine kinase Source HGNC Symbol Acc HGNC 9829
G09	UPFH0001483	ENST00000267163.5	RB1	ENSG00000139687	RB transcriptional corepressor 1 Source HGNC Symbol Acc HGNC 9884
G10	UPFH0380654	ENST00000339276.6	SFN	ENSG00000175793	stratifin Source HGNC Symbol Acc HGNC 10773
G11	UPFH0151428	ENST00000342988.7	SMAD4	ENSG00000141646	SMAD family member 4 Source HGNC Symbol Acc HGNC 6770
G12	UPFH0565795	ENST00000269305.8	TP53	ENSG00000141510	tumor protein p53 Source HGNC Symbol Acc HGNC 11998
H01	UPFH1132936	ENST00000646664.1	ACTB	ENSG00000075624	actin beta Source HGNC Symbol Acc HGNC 132
H02	UPFH1132937	ENST00000544417.5	B2M	ENSG00000166710	beta-2-microglobulin Source HGNC Symbol Acc HGNC 914
H03	UPFH1132938	ENST00000229239.10	GAPDH	ENSG00000111640	glyceraldehyde-3-phosphate dehydrogenase Source HGNC Symbol Acc HGNC 4141
H04	UPFH1132939	ENST00000298556.8	HPRT1	ENSG00000165704	hypoxanthine phosphoribosyltransferase 1 Source HGNC Symbol Acc HGNC 5157
H05	UPFH1132941	ENST00000392514.9	RPLP0	ENSG00000089157	ribosomal protein lateral stalk subunit P0 Source HGNC Symbol Acc HGNC 10371
H06	UPFH1126608	UPL_HGDC	HGDC	UPL_HGDC	Human Genomic DNA Contamination
H07	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H08	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H09	UPFH1126606	UPL_QIC	QIC	UPL_QIC	QuantiNova Internal Control
H10	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control
H11	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control
H12	UPFH1126605	UPL_PPC	PPC	UPL_PPC	Positive PCR Control

Related products

Product	Contents	Cat. no.
QuantiNova LNA Probe PCR QC Panel	These panels are designed to assess the quality of RNA samples before characterization using QuantiNova LNA Probe PCR Focus Panels; available in 96-well, 384-well, and Rotor-Disc 100 formats	249945
QuantiNova Reverse Transcription Kit (10)*	For 10 x 20 µl reactions: 20 µl 8x gDNA Removal Mix, 10 µl Reverse Transcription Enzyme, 40 µl Reverse Transcription Mix (containing RT primers), 20 µl Internal Control RNA, 1.9 ml RNase-Free Water	205410
QuantiNova Probe RT-PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml QuantiNova Probe RT-PCR Master Mix, 20 µl QuantiNova Probe RT Mix, 20 µl Internal Control RNA, 500 µl Yellow Template Dilution Buffer, 250 µl ROX Reference Dye, 1.9 µl RNase-Free Water	208352
QuantiNova Probe PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml 2x QuantiNova Probe PCR Master Mix, 500 µl QuantiNova Yellow Template Dilution Buffer, 250 µl QN ROX Reference Dye, 1.9 ml Water	208252

*Larger kit sizes available.

The QuantiNova LNA Probe PCR Focus Panels are intended for molecular biology applications. These products are not intended for the diagnosis, prevention or treatment of a disease.

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