

QuantiNova® LNA® PCR Focus Panels (96-Well Format and 384-Well [4 x 96] Format)

Rat Epithelial to Mesenchymal Transition (EMT)

Cat. no. 249950 SBRN-090ZA

For study focus gene expression analysis

Shipping and storage

QuantiNova LNA PCR Focus Panels are shipped at ambient temperature. Immediately upon receipt, they should be stored 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 PCR Focus Panels should be used together with the QuantiNova Reverse Transcription Kit for cDNA synthesis and the QuantiNova SYBR® Green PCR Kit (Mastermix) for PCR.

Panel layout (96-well): QuantiNova LNA PCR Focus Panel

For the 384-well (4 × 96) PCR panels, genes are present in a staggered format. Refer to the QuantiNova LNA PCR System Handbook at www.qiagen.com for further details.

	1	2	3	4	5	6	7	8	9	10	11	12
A	Ahnak	Akt1	Bmp7	Cald1	Camk2n1	Cav2	Cdh1	Cdh2	Col1a2	Col3a1	Col5a2	Ccn2
B	Ctnnb1	Dsc2	Dsp	Egfr	ErbB3	Esr1	F11r	Fgfbp1	Fgfr2	Fkbp1a	Fn1	Foxc2
C	Fzd7	Gng11	Gsc	Gsk3b	Igf1bp4	Il1rn	Ilk	Itga5	Itgav	Itgb1	Jag1	Krt14
D	Krt19	Krt7	Map1b	Mif	Mmp2	Mmp3	Mmp9	Msn	Nodal	Notch1	Ocln	Pdgfrb
E	Plak2	Ppp3r1	Plk2	LOC100365697	Rac1	Rgs2	Serpine1	Gemin2	Smad2	Snai1	Snai2	Snai3
F	Sox10	Sparc	Spp1	Stat3	Steap1	Tcf7l1	Tcf4	Tipi2	Tgfb1	Tgfb2	Tgfb3	Timp1
G	Tmeff1	Tmem132a	Tspan13	Twist1	Vcan	Vim	Vps13a	Wnt11	Wnt5a	Wnt5b	Zeb1	Zeb2
H	Actb	B2m	Hprt1	Ldha	Rplp1	RGDC	QIC	QIC	QIC	PPC	PPC	PPC

Gene table: QuantiNova LNA PCR Focus Panel

Position	Assay	Name	Symbol	Ensembl ID	Description
A01	SBR1120387	ENSRNOT00000088387.1	Ahnak	ENSRNOG0000057569	AHNAK nucleoprotein Source RGD Symbol Acc 619779
A02	SBR1163078	ENSRNOT00000031164.3	Akt1	ENSRNOG0000028629	AKT serine/threonine kinase 1 Source RGD Symbol Acc 2081
A03	SBR1093977	ENSRNOT00000084990.1	Bmp7	ENSRNOG0000053384	bone morphogenetic protein 7 Source RGD Symbol Acc 620743
A04	SBR1164974	ENSRNOT00000041264.3	Cald1	ENSRNOG0000010233	caldesmon 1 Source RGD Symbol Acc 2256
A05	SBR1167828	ENSRNOT00000021864.2	Camk2n1	ENSRNOG0000016322	calcium/calmodulin-dependent protein kinase II inhibitor 1 Source RGD Symbol Acc 708430
A06	SBR1201369	ENSRNOT00000080271.1	Cav2	ENSRNOG0000057713	caveolin 2 Source RGD Symbol Acc 620348
A07	SBR1170192	ENSRNOT00000027346.2	Cdh1	ENSRNOG0000020151	cadherin 1 Source RGD Symbol Acc 69279
A08	SBR1148414	ENSRNOT00000021170.6	Cdh2	ENSRNOG0000015602	cadherin 2 Source RGD Symbol Acc 69280
A09	SBR1097834	ENSRNOT00000089292.1	Col1a2	ENSRNOG0000011292	collagen type I alpha 2 chain Source RGD Symbol Acc 621351
A10	SBR1150486	ENSRNOT00000004956.4	Col3a1	ENSRNOG0000003357	collagen type III alpha 1 chain Source RGD Symbol Acc 71029
A11	SBR1216685	ENSRNOT00000005073.7	Col5a2	ENSRNOG0000003736	collagen type V alpha 2 chain Source RGD Symbol Acc 70921
A12	SBR1133606	ENSRNOT00000089196.1	Ccn2	ENSRNOG0000015036	cellular communication network factor 2 Source RGD Symbol Acc 621392
B01	SBR1143136	ENSRNOT00000079085.1	Ctnnb1	ENSRNOG0000054172	catenin beta 1 Source RGD Symbol Acc 70487
B02	SBR1154049	ENSRNOT00000082891.1	Dsc2	ENSRNOG0000039969	desmocollin 2 Source RGD Symbol Acc 1309426
B03	SBR1121361	ENSRNOT00000018649.6	Dsp	ENSRNOG0000013928	desmoplakin Source RGD Symbol Acc 1305794
B04	SBR1196436	ENSRNOT00000006087.2	Egfr	ENSRNOG0000004332	epidermal growth factor receptor Source RGD Symbol Acc 2543
B05	SBR1153467	ENSRNOT00000006796.4	ErbB3	ENSRNOG0000004964	erb-b2 receptor tyrosine kinase 3 Source RGD Symbol Acc 69323
B06	SBR1147622	ENSRNOT00000081017.1	Esr1	ENSRNOG0000019358	estrogen receptor 1 Source RGD Symbol Acc 2581
B07	SBR1115759	ENSRNOT00000006141.5	F11r	ENSRNOG0000004414	F11 receptor Source RGD Symbol Acc 621842
B08	SBR1152738	ENSRNOT00000004128.4	Fgfbp1	ENSRNOG0000003095	fibroblast growth factor binding protein 1 Source RGD Symbol Acc 621211
B09	SBR1189435	ENSRNOT00000022253.6	Fgfr2	ENSRNOG0000016374	fibroblast growth factor receptor 2 Source RGD Symbol Acc 2611
B10	SBR1094802	ENSRNOT00000012608.4	Fkbp1a	ENSRNOG0000008822	FKBP prolyl isomerase 1A Source RGD Symbol Acc 2617
B11	SBR1178912	ENSRNOT00000019772.6	Fn1	ENSRNOG0000014288	fibronectin 1 Source RGD Symbol Acc 2624
B12	SBR1124840	ENSRNOT00000072369.1	Foxc2	ENSRNOG0000047446	forkhead box C2 Source RGD Symbol Acc 621703
C01	SBR1124398	ENSRNOT00000021569.6	Fzd7	ENSRNOG0000016119	frizzled class receptor 7 Source RGD Symbol Acc 2321905
C02	SBR1209692	ENSRNOT00000075326.2	Gng11	ENSRNOG0000047914	G protein subunit gamma 11 Source RGD Symbol Acc 621515
C03	SBR1202297	ENSRNOT00000014204.5	Gsc	ENSRNOG0000010605	goosecoid homeobox Source RGD Symbol Acc 631425
C04	SBR1155736	ENSRNOT00000077612.1	Gsk3b	ENSRNOG0000002833	glycogen synthase kinase 3 beta Source RGD Symbol Acc 70982
C05	SBR1191354	ENSRNOT00000014153.7	Igfbp4	ENSRNOG0000010635	insulin-like growth factor binding protein 4 Source RGD Symbol Acc 2875
C06	SBR1111330	ENSRNOT00000007949.6	Il1rn	ENSRNOG0000005871	interleukin 1 receptor antagonist Source RGD Symbol Acc 621159
C07	SBR1108626	ENSRNOT00000025906.4	Ilk	ENSRNOG0000018993	integrin-linked kinase Source RGD Symbol Acc 620063
C08	SBR1211134	ENSRNOT00000087748.1	Itga5	ENSRNOG0000057451	integrin subunit alpha 5 Source RGD Symbol Acc 2925
C09	SBR1162857	ENSRNOT00000006961.7	Itgav	ENSRNOG0000004912	integrin subunit alpha V Source RGD Symbol Acc 1310613
C10	SBR1105686	ENSRNOT00000014785.5	Itgb1	ENSRNOG0000010966	integrin subunit beta 1 Source RGD Symbol Acc 2927
		ENSRNOT000000		ENSRNOG00	

Position	Assay	Name	Symbol	Ensembl ID	Description
C11	SBR1173778	010638.7	Jag1	000007443	jagged 1 Source RGD Symbol Acc 2937
C12	SBR1106051	ENSRNOT00000083895.1	Krt14	ENSRNOG0000003899	keratin 14 Source RGD Symbol Acc 1307463
D01	SBR1178187	ENSRNOT00000019133.4	Krt19	ENSRNOG00000014233	keratin 19 Source RGD Symbol Acc 619936
D02	SBR1116967	ENSRNOT00000087481.1	Krt7	ENSRNOG0000008057	keratin 7 Source RGD Symbol Acc 1310865
D03	SBR1178863	ENSRNOT00000023460.5	Map1b	ENSRNOG00000017428	microtubule-associated protein 1B Source RGD Symbol Acc 3043
D04	SBR1115783	ENSRNOT00000083127.1	Mitf	ENSRNOG0000008658	melanocyte inducing transcription factor Source RGD Symbol Acc 3092
D05	SBR1120605	ENSRNOT00000022679.6	Mmp2	ENSRNOG0000016695	matrix metallopeptidase 2 Source RGD Symbol Acc 621316
D06	SBR1166091	ENSRNOT00000091704.1	Mmp3	ENSRNOG0000032626	matrix metallopeptidase 3 Source RGD Symbol Acc 621317
D07	SBR1206750	ENSRNOT00000023965.3	Mmp9	ENSRNOG0000017539	matrix metallopeptidase 9 Source RGD Symbol Acc 621320
D08	SBR1151055	ENSRNOT00000093499.1	Msn	ENSRNOG0000030118	moesin Source RGD Symbol Acc 621260
D09	SBR1149225	ENSRNOT00000000672.4	Nodal	ENSRNOG0000000556	nodal growth differentiation factor Source RGD Symbol Acc 1305994
D10	SBR1183596	ENSRNOT00000026212.7	Notch1	ENSRNOG0000019322	notch 1 Source RGD Symbol Acc 3187
D11	SBR1197094	ENSRNOT00000084667.1	Ocln	ENSRNOG0000018297	occludin Source RGD Symbol Acc 620089
D12	SBR1100630	ENSRNOT00000086033.1	Pdgfrb	ENSRNOG0000018461	platelet derived growth factor receptor beta Source RGD Symbol Acc 3285
E01	SBR1213739	ENSRNOT00000014125.5	Plek2	ENSRNOG0000010098	pleckstrin 2 Source RGD Symbol Acc 1305786
E02	SBR1206879	ENSRNOT00000031275.6	Ppp3r1	ENSRNOG0000043210	protein phosphatase 3, regulatory subunit B, alpha Source RGD Symbol Acc 69230
E03	SBR1118067	ENSRNOT00000079599.1	Plk2	ENSRNOG0000007916	protein tyrosine kinase 2 Source RGD Symbol Acc 3443
E04	SBR1212863	ENSRNOT00000016237.3	LOC100365697	ENSRNOG0000011771	protein tyrosine phosphatase type IVA 1 Source RGD Symbol Acc 9374124
E05	SBR1123146	ENSRNOT00000001417.5	Rac1	ENSRNOG0000001068	Rac family small GTPase 1 Source RGD Symbol Acc 619755
E06	SBR1199490	ENSRNOT00000005156.6	Rgs2	ENSRNOG0000003687	regulator of G-protein signaling 2 Source RGD Symbol Acc 621665
E07	SBR1126485	ENSRNOT00000001916.2	Serpine1	ENSRNOG0000001414	serpin family E member 1 Source RGD Symbol Acc 3249
E08	SBR1207884	ENSRNOT00000006137.5	Gemin2	ENSRNOG0000004360	gem (nuclear organelle) associated protein 2 Source RGD Symbol Acc 620842
E09	SBR1164397	ENSRNOT00000046847.4	Smad2	ENSRNOG0000018140	SMAD family member 2 Source RGD Symbol Acc 3031
E10	SBR1162553	ENSRNOT00000077581.1	Snai1	ENSRNOG0000009594	snail family transcriptional repressor 1 Source RGD Symbol Acc 620758
E11	SBR1127823	ENSRNOT00000073049.2	Snai2	ENSRNOG0000047699	snail family transcriptional repressor 2 Source RGD Symbol Acc 3722
E12	SBR1209759	ENSRNOT00000018387.6	Snai3	ENSRNOG0000013586	snail family transcriptional repressor 3 Source RGD Symbol Acc 1309658
F01	SBR1171560	ENSRNOT00000015283.3	Sox10	ENSRNOG0000011305	SRY box 10 Source RGD Symbol Acc 3735
F02	SBR1136268	ENSRNOT00000017486.7	Sparc	ENSRNOG0000012840	secreted protein acidic and cysteine rich Source RGD Symbol Acc 3742
F03	SBR1210860	ENSRNOT00000075989.1	Spp1	ENSRNOG0000043451	secreted phosphoprotein 1 Source RGD Symbol Acc 3752
F04	SBR1138417	ENSRNOT00000026760.4	Stat3	ENSRNOG0000019742	signal transducer and activator of transcription 3 Source RGD Symbol Acc 3772
F05	SBR1171557	ENSRNOT00000000018.7	Steap1	ENSRNOG0000000017	STEAP family member 1 Source RGD Symbol Acc 1311543
F06	SBR1154852	ENSRNOT00000020005.7	Tcf7l1	ENSRNOG0000014753	transcription factor 7 like 1 Source RGD Symbol Acc 1311671
F07	SBR1134900	ENSRNOT00000081797.1	Tcf4	ENSRNOG0000012405	transcription factor 4 Source RGD Symbol Acc 69271
F08	SBR1190870	ENSRNOT00000013989.3	Tfpi2	ENSRNOG0000010513	tissue factor pathway inhibitor 2 Source RGD Symbol Acc 628629
F09	SBR1143485	ENSRNOT00000028051.4	Tgfb1	ENSRNOG0000020652	transforming growth factor, beta 1 Source RGD Symbol Acc 69051
F10	SBR1164140	ENSRNOT00000087023.1	Tgfb2	ENSRNOG0000002418	transforming growth factor, beta 2 Source RGD Symbol Acc 70491

Position	Assay	Name	Symbol	Ensembl ID	Description
F11	SBR1115193	ENSRNOT00000013516.5	Tgfb3	ENSRNOG0000009867	transforming growth factor, beta 3 Source RGD Symbol Acc 3851
F12	SBR1154276	ENSRNOT00000013745.7	Timp1	ENSRNOG0000010208	TIMP metalloproteinase inhibitor 1 Source RGD Symbol Acc 621675
G01	SBR1193253	ENSRNOT00000065775.2	Tmeff1	ENSRNOG0000008034	transmembrane protein with EGF-like and two follistatin-like domains 1 Source RGD Symbol Acc 62005
G02	SBR1094846	ENSRNOT00000028971.4	Tmem132a	ENSRNOG0000021338	transmembrane protein 132A Source RGD Symbol Acc 727936
G03	SBR1179208	ENSRNOT00000006752.5	Tspan13	ENSRNOG0000005046	tetraspanin 13 Source RGD Symbol Acc 1311788
G04	SBR1200999	ENSRNOT00000014763.6	Twist1	ENSRNOG0000011101	twist family bHLH transcription factor 1 Source RGD Symbol Acc 621455
G05	SBR1171946	ENSRNOT00000063821.3	Vcan	ENSRNOG0000029212	versican Source RGD Symbol Acc 619940
G06	SBR1197523	ENSRNOT00000024430.5	Vim	ENSRNOG0000018087	vimentin Source RGD Symbol Acc 621646
G07	SBR1206236	ENSRNOT00000014800.7	Vps13a	ENSRNOG0000025539	vacuolar protein sorting 13 homolog A Source RGD Symbol Acc 1311340
G08	SBR1196784	ENSRNOT00000021674.5	Wnt11	ENSRNOG0000015982	Wnt family member 11 Source RGD Symbol Acc 621463
G09	SBR1212833	ENSRNOT00000021164.3	Wnt5a	ENSRNOG0000015618	Wnt family member 5A Source RGD Symbol Acc 69250
G10	SBR1206664	ENSRNOT00000011044.4	Wnt5b	ENSRNOG0000008168	Wnt family member 5B Source RGD Symbol Acc 628850
G11	SBR1125137	ENSRNOT00000046013.4	Zeb1	ENSRNOG0000017863	zinc finger E-box binding homeobox 1 Source RGD Symbol Acc 3831
G12	SBR1104478	ENSRNOT00000080382.1	Zeb2	ENSRNOG0000004677	zinc finger E-box binding homeobox 2 Source RGD Symbol Acc 1307272
H01	SBR1220567	ENSRNOT00000042459.4	Actb	ENSRNOG0000034254	actin, beta Source RGD Symbol Acc 628837
H02	SBR1220568	ENSRNOT00000023017.5	B2m	ENSRNOG0000017123	beta-2 microglobulin Source RGD Symbol Acc 2189
H03	SBR1225377	ENSRNOT00000065935.3	Hprt1	ENSRNOG0000048561	hypoxanthine phosphoribosyltransferase 1 Source RGD Symbol Acc 2826
H04	SBR1122313	ENSRNOT00000017468.2	Ldha	ENSRNOG0000013009	lactate dehydrogenase A Source RGD Symbol Acc 2996
H05	SBR1220572	ENSRNOT00000018820.5	Rplp1	ENSRNOG0000013874	ribosomal protein lateral stalk subunit P1 Source RGD Symbol Acc 621774
H06	SBR1218555	Sybr_RGDC	RGDC	Sybr_RGDC	Rat Genomic DNA Contamination
H07	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H08	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H09	SBH1218551	Sybr_QIC	QIC	Sybr_QIC	QuantiNova Internal Control
H10	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control
H11	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control
H12	SBH1218550	Sybr_PPC	PPC	Sybr_PPC	Positive PCR Control

Related products

Product	Contents	Cat. no.
QuantiNova LNA PCR QC Panel	These panels are designed to assess the quality of RNA samples before characterization using QuantiNova LNA PCR Focus Panels; available in 96-well, 384-well, and Rotor-Disc 100 formats	249940
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 SYBR Green RT-PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 µl QuantiNova SYBR Green RT Mix, 20 µl Internal Control RNA, 500 µl Yellow Template Dilution Buffer, 250 µl ROX Reference Dye, 1.9 µl RNase-Free Water	208152
QuantiNova SYBR Green PCR Kit (100)*	For 100 x 20 µl reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 µl QuantiNova Yellow Template Dilution Buffer, 250 µl QN ROX Reference Dye, 1.9 ml Water	208052

*Larger kit sizes available.

The QuantiNova LNA 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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