

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

## Mouse Glucocorticoid Signaling

Cat. no. 249950 SBMM-154ZA

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](http://www.qiagen.com) for further details.

|   | 1       | 2      | 3      | 4       | 5        | 6       | 7       | 8       | 9      | 10     | 11     | 12      |
|---|---------|--------|--------|---------|----------|---------|---------|---------|--------|--------|--------|---------|
| A | Adarb1  | Aff1   | Ak2    | Ampd3   | Angptf4  | Anxa4   | Aqp1    | Arid5b  | Asph   | Aif4   | Bcl6   | Bmpr    |
| B | Calcr   | Cebpa  | Cebpb  | Col4a2  | Creb1    | Creb3   | Creb3l4 | Ccn2    | Cyb561 | Ddit4  | Diras2 | Dusp1   |
| C | Edn1    | Ehd3   | Erff1  | Fkbp5   | Fosl2    | Gdgd1   | Ghrhr   | Glul    | Gst1   | H6pd   | Has2   | Hnrnp11 |
| D | Il10    | Il1rn  | Il6    | Il6ra   | Klf13    | Klf9    | Lox     | Merlk   | Mt1    | Mf2    | Nrkbia | Nr3c1   |
| E | Pdcd7   | Pdgfrb | Pdp1   | Per1    | Per2     | Plk3r1  | Pld1    | Plekhf1 | Pou2f1 | Pou2f2 | Rasa3  | Rgs2    |
| F | Rhob    | Rhoj   | Sees1  | Sgk1    | Slc10a6  | Slc19a2 | Slc22a5 | Snta1   | Sphk1  | Spab1  | Stat5a | Stat5b  |
| G | Tbl1xr1 | Tnf    | Tnfai3 | Tsc22d3 | Usp2     | Usp54   | Vdr     | Vidlr   | Xdh    | Zfp281 | Zfp36  | Zhx3    |
| H | Actb    | B2m    | Gapdh  | Gusb    | Hsp90ab1 | MGDC    | QIC     | QIC     | QIC    | PPC    | PPC    | PPC     |

## Gene table: QuantiNova LNA PCR Focus Panel

| Position | Assay      | Name                  | Symbol  | Ensembl ID         | Description   |
|----------|------------|-----------------------|---------|--------------------|---|
| A01      | SBM0772121 | ENSMUST00000156583.7  | Adarb1  | ENSMUSG0000020262  | adenosine deaminase, RNA-specific, B1 Source MGI Symbol Acc MGI 891999                        |
| A02      | SBM0949377 | ENSMUST00000152145.1  | Aff1    | ENSMUSG0000029313  | AF4/FMR2 family, member 1 Source MGI Symbol Acc MGI 1100819                                   |
| A03      | SBM0764557 | ENSMUST00000152762.1  | Ak2     | ENSMUSG0000028792  | adenylate kinase 2 Source MGI Symbol Acc MGI 87978  |
| A04      | SBM0952717 | ENSMUST00000170374.7  | Ampd3   | ENSMUSG0000005686  | adenosine monophosphate deaminase 3 Source MGI Symbol Acc MGI 1096344                         |
| A05      | SBM0692606 | ENSMUST00000174872.1  | Angptl4 | ENSMUSG0000002289  | angiotensin-like 4 Source MGI Symbol Acc MGI 1888999  |
| A06      | SBM0705934 | ENSMUST00000127152.8  | Anxa4   | ENSMUSG0000029994  | annexin A4 Source MGI Symbol Acc MGI 88030  |
| A07      | SBM1015203 | ENSMUST00000004774.3  | Aqp1    | ENSMUSG0000004655  | aquaporin 1 Source MGI Symbol Acc MGI 103201  |
| A08      | SBM0743486 | ENSMUST00000218532.1  | Arid5b  | ENSMUSG0000019947  | AT rich interactive domain 5B (MRF1-like) Source MGI Symbol Acc MGI 2175912                   |
| A09      | SBM0800175 | ENSMUST00000108337.7  | Asph    | ENSMUSG0000028207  | aspartate-beta-hydroxylase Source MGI Symbol Acc MGI 1914186                                  |
| A10      | SBM1055409 | ENSMUST00000230434.1  | Atf4    | ENSMUSG0000042406  | activating transcription factor 4 Source MGI Symbol Acc MGI 88096                             |
| A11      | SBM1068298 | ENSMUST00000023151.5  | Bcl6    | ENSMUSG0000022508  | B cell leukemia/lymphoma 6 Source MGI Symbol Acc MGI 107187                                   |
| A12      | SBM0913745 | ENSMUST00000214050.1  | Bmper   | ENSMUSG00000031963 | BMP-binding endothelial regulator Source MGI Symbol Acc MGI 1920480                           |
| B01      | SBM0787713 | ENSMUST00000170266.2  | Calcr   | ENSMUSG0000023964  | calcitonin receptor Source MGI Symbol Acc MGI 101950  |
| B02      | SBM0970317 | ENSMUST00000205391.1  | Cebpa   | ENSMUSG00000034957 | CCAAT/enhancer binding protein (C/EBP), alpha Source MGI Symbol Acc MGI 99480                 |
| B03      | SBM0682459 | ENSMUST00000070642.3  | Cebpb   | ENSMUSG00000056501 | CCAAT/enhancer binding protein (C/EBP), beta Source MGI Symbol Acc MGI 88373                  |
| B04      | SBM0756779 | ENSMUST00000033899.13 | Col4a2  | ENSMUSG00000031503 | collagen, type IV, alpha 2 Source MGI Symbol Acc MGI 88455                                    |
| B05      | SBM0735214 | ENSMUST00000188855.6  | Creb1   | ENSMUSG0000025958  | cAMP responsive element binding protein 1 Source MGI Symbol Acc MGI 88494                     |
| B06      | SBM0997266 | ENSMUST00000167751.1  | Creb3   | ENSMUSG0000028466  | cAMP responsive element binding protein 3 Source MGI Symbol Acc MGI 99946                     |
| B07      | SBM1046561 | ENSMUST00000029547.9  | Creb3l4 | ENSMUSG00000027938 | cAMP responsive element binding protein 3-like 4 Source MGI Symbol Acc MGI 1916603            |
| B08      | SBM0718058 | ENSMUST00000176228.1  | Ccn2    | ENSMUSG0000019997  | cellular communication network factor 1 Source MGI Symbol Acc MGI 95537                       |
| B09      | SBM0833318 | ENSMUST00000150563.2  | Cyb561  | ENSMUSG0000019590  | cytochrome b-561 Source MGI Symbol Acc MGI 103253   |
| B10      | SBM1018894 | ENSMUST00000020308.4  | Ddit4   | ENSMUSG0000020108  | DNA-damage-inducible transcript 4 Source MGI Symbol Acc MGI 1921997                           |
| B11      | SBM0722542 | ENSMUST00000057442.7  | Diras2  | ENSMUSG0000047842  | DIRAS family, GTP-binding RAS-like 2 Source MGI Symbol Acc MGI 1915453                        |
| B12      | SBM1019762 | ENSMUST00000126178.1  | Dusp1   | ENSMUSG0000024190  | dual specificity phosphatase 1 Source MGI Symbol Acc MGI 105120                               |
| C01      | SBM0992224 | ENSMUST00000021796.8  | Edn1    | ENSMUSG0000021367  | endothelin 1 Source MGI Symbol Acc MGI 95283  |
| C02      | SBM0680545 | ENSMUST00000024860.8  | Ehd3    | ENSMUSG0000024065  | EH-domain containing 3 Source MGI Symbol Acc MGI 1928900                                      |
| C03      | SBM1026367 | ENSMUST00000030811.1  | Errfi1  | ENSMUSG0000028967  | ERBB receptor feedback inhibitor 1 Source MGI Symbol Acc MGI 1921405                          |
| C04      | SBM0905630 | ENSMUST00000233307.1  | Fkbp5   | ENSMUSG0000024222  | FK506 binding protein 5 Source MGI Symbol Acc MGI 104670                                      |
| C05      | SBM0960745 | ENSMUST00000202169.1  | Fosl2   | ENSMUSG0000029135  | fos-like antigen 2 Source MGI Symbol Acc MGI 102858   |
| C06      | SBM1075189 | ENSMUST00000020804.7  | Gdpd1   | ENSMUSG0000061666  | glycerophosphodiester phosphodiesterase domain containing 1 Source MGI Symbol Acc MGI 1913819 |
| C07      | SBM1076915 | ENSMUST00000063578.5  | Ghrhr   | ENSMUSG0000004654  | growth hormone releasing hormone receptor Source MGI Symbol Acc MGI 95710                     |
| C08      | SBM1001480 | ENSMUST00000139476.7  | Glul    | ENSMUSG0000026473  | glutamate-ammonia ligase (glutamine synthetase) Source MGI Symbol Acc MGI 95739               |
| C09      | SBM1059479 | ENSMUST00000026196.13 | Got1    | ENSMUSG0000025190  | glutamic-oxaloacetic transaminase 1, soluble Source MGI Symbol Acc MGI 95791                  |
| C10      | SBM1011091 | ENSMUST00000030830.3  | H6pd    | ENSMUSG0000028980  | hexose-6-phosphate dehydrogenase (glucose 1-dehydrogenase) Source MGI Symbol Acc MGI 2140356  |
|          |            | ENSMUST00000          |         | ENSMUSG00          |   |

| Position | Assay      | Name                   | Symbol  | Ensembl ID        | Description  |
|----------|------------|------------------------|---------|-------------------|--|
| C11      | SBM0970459 | 050544.7               | Has2    | 000022367         | hyaluronan synthase 2 Source MGI Symbol Acc MGI 107821   |
| C12      | SBM0888893 | ENSMUST00000184578.7   | Hnrnp11 | ENSMUSG0000024095 | heterogeneous nuclear ribonucleoprotein L-like Source MGI Symbol Acc MGI 1919942                                     |
| D01      | SBM1004151 | ENSMUST00000016673.5   | Il10    | ENSMUSG0000016529 | interleukin 10 Source MGI Symbol Acc MGI 96537   |
| D02      | SBM0732530 | ENSMUST00000142093.6   | Il1rn   | ENSMUSG0000026981 | interleukin 1 receptor antagonist Source MGI Symbol Acc MGI 96547  |
| D03      | SBM0742623 | ENSMUST00000026845.11  | Il6     | ENSMUSG0000025746 | interleukin 6 Source MGI Symbol Acc MGI 96559  |
| D04      | SBM0834938 | ENSMUST00000197679.4   | Il6ra   | ENSMUSG0000027947 | interleukin 6 receptor, alpha Source MGI Symbol Acc MGI 105304   |
| D05      | SBM0869531 | ENSMUST00000185175.1   | Klf13   | ENSMUSG0000052040 | Kruppel-like factor 13 Source MGI Symbol Acc MGI 1354948   |
| D06      | SBM0951586 | ENSMUST00000036884.2   | Klf9    | ENSMUSG0000033863 | Kruppel-like factor 9 Source MGI Symbol Acc MGI 1333856  |
| D07      | SBM0925223 | ENSMUST00000025409.8   | Lox     | ENSMUSG0000024529 | lysyl oxidase Source MGI Symbol Acc MGI 96817  |
| D08      | SBM0937977 | ENSMUST00000014505.4   | Mertk   | ENSMUSG0000014361 | MER proto-oncogene tyrosine kinase Source MGI Symbol Acc MGI 96965   |
| D09      | SBM0992835 | ENSMUST000000211807.1  | Mt1     | ENSMUSG0000031765 | metallothionein 1 Source MGI Symbol Acc MGI 97171  |
| D10      | SBM0896648 | ENSMUST000000212806.1  | Mt2     | ENSMUSG0000031762 | metallothionein 2 Source MGI Symbol Acc MGI 97172  |
| D11      | SBM0696431 | ENSMUST00000021413.8   | Nfkb1a  | ENSMUSG0000021025 | nuclear factor of kappa light polypeptide gene enhancer in B cells inhibitor, alpha Source MGI Symbol Acc MGI 104741 |
| D12      | SBM0963014 | ENSMUST000000115571.7  | Nr3c1   | ENSMUSG0000024431 | nuclear receptor subfamily 3, group C, member 1 Source MGI Symbol Acc MGI 95824                                      |
| E01      | SBM0723314 | ENSMUST000000048184.3  | Pdcd7   | ENSMUSG0000041837 | programmed cell death 7 Source MGI Symbol Acc MGI 1859170  |
| E02      | SBM0934218 | ENSMUST000000025522.10 | Pdgfrb  | ENSMUSG0000024620 | platelet derived growth factor receptor, beta polypeptide Source MGI Symbol Acc MGI 97531                            |
| E03      | SBM0690156 | ENSMUST000000108297.2  | Pdp1    | ENSMUSG0000049225 | pyruvate dehydrogenase phosphatase catalytic subunit 1 Source MGI Symbol Acc MGI 2685870                             |
| E04      | SBM0874801 | ENSMUST000000142392.7  | Per1    | ENSMUSG0000020893 | period circadian clock 1 Source MGI Symbol Acc MGI 1098283   |
| E05      | SBM0927377 | ENSMUST000000185298.1  | Per2    | ENSMUSG0000055866 | period circadian clock 2 Source MGI Symbol Acc MGI 1195265   |
| E06      | SBM0805909 | ENSMUST000000035532.12 | Pik3r1  | ENSMUSG0000041417 | phosphoinositide-3-kinase regulatory subunit 1 Source MGI Symbol Acc MGI 97583                                       |
| E07      | SBM0696678 | ENSMUST000000123539.7  | Pld1    | ENSMUSG0000027695 | phospholipase D1 Source MGI Symbol Acc MGI 109585  |
| E08      | SBM1049640 | ENSMUST000000098513.5  | Plekhf1 | ENSMUSG0000074170 | pleckstrin homology domain containing, family F (with FYVE domain) member 1 Source MGI Symbol Acc MGI 1919537        |
| E09      | SBM0831533 | ENSMUST000000111427.8  | Pou2f1  | ENSMUSG0000026565 | POU domain, class 2, transcription factor 1 Source MGI Symbol Acc MGI 101898   |
| E10      | SBM0963272 | ENSMUST000000175774.8  | Pou2f2  | ENSMUSG0000008496 | POU domain, class 2, transcription factor 2 Source MGI Symbol Acc MGI 101897   |
| E11      | SBM0877825 | ENSMUST000000154454.7  | Rasa3   | ENSMUSG0000031453 | RAS p21 protein activator 3 Source MGI Symbol Acc MGI 1197013  |
| E12      | SBM1066056 | ENSMUST000000134817.1  | Rgs2    | ENSMUSG0000026360 | regulator of G-protein signaling 2 Source MGI Symbol Acc MGI 1098271   |
| F01      | SBM0814150 | ENSMUST000000067384.5  | Rhob    | ENSMUSG0000054364 | ras homolog family member B Source MGI Symbol Acc MGI 107949   |
| F02      | SBM0883575 | ENSMUST000000055390.5  | Rhoj    | ENSMUSG0000046768 | ras homolog family member J Source MGI Symbol Acc MGI 1931551  |
| F03      | SBM0697798 | ENSMUST000000214835.1  | Sesn1   | ENSMUSG0000038332 | sestrin 1 Source MGI Symbol Acc MGI 2155278  |
| F04      | SBM0909072 | ENSMUST000000126560.1  | Sgk1    | ENSMUSG0000019970 | serum/glucocorticoid regulated kinase 1 Source MGI Symbol Acc MGI 1340062  |
| F05      | SBM1029029 | ENSMUST000000031263.1  | Slc10a6 | ENSMUSG0000029321 | solute carrier family 10 (sodium/bile acid cotransporter family), member 6 Source MGI Symbol Acc MGI 1923000         |
| F06      | SBM0806007 | ENSMUST000000169394.1  | Slc19a2 | ENSMUSG0000040918 | solute carrier family 19 (thiamine transporter), member 2 Source MGI Symbol Acc MGI 1928761                          |
| F07      | SBM0772549 | ENSMUST000000152084.1  | Slc22a5 | ENSMUSG0000018900 | solute carrier family 22 (organic cation transporter), member 5 Source MGI Symbol Acc MGI 1329012                    |
| F08      | SBM0837346 | ENSMUST000000109728.7  | Snta1   | ENSMUSG0000027488 | syntrophin, acidic 1 Source MGI Symbol Acc MGI 101772  |
| F09      | SBM0831314 | ENSMUST000000063396.9  | Sphk1   | ENSMUSG0000061878 | sphingosine kinase 1 Source MGI Symbol Acc MGI 1316649   |
| F10      | SBM0934525 | ENSMUST000000105684.1  | Spsb1   | ENSMUSG0000039911 | splA/ryanodine receptor domain and SOCS box containing 1 Source MGI Symbol Acc MGI 1921896                           |

| Position | Assay      | Name                  | Symbol   | Ensembl ID         | Description   |
|----------|------------|-----------------------|----------|--------------------|---|
| F11      | SBM0789938 | ENSMUST00000138083.7  | Stat5a   | ENSMUSG0000004043  | signal transducer and activator of transcription 5A Source MGI Symbol Acc MGI 103036      |
| F12      | SBM0792638 | ENSMUST00000126266.1  | Stat5b   | ENSMUSG0000020919  | signal transducer and activator of transcription 5B Source MGI Symbol Acc MGI 103035      |
| G01      | SBM1009062 | ENSMUST00000200943.3  | Tb11xr1  | ENSMUSG0000027630  | transducin (beta)-like 1X-linked receptor 1 Source MGI Symbol Acc MGI 2441730             |
| G02      | SBM0788439 | ENSMUST0000025263.14  | Tnf      | ENSMUSG0000024401  | tumor necrosis factor Source MGI Symbol Acc MGI 104798                                    |
| G03      | SBM0936524 | ENSMUST00000105527.1  | Tnfaip3  | ENSMUSG0000019850  | tumor necrosis factor, alpha-induced protein 3 Source MGI Symbol Acc MGI 1196377          |
| G04      | SBM0967321 | ENSMUST00000055738.11 | Tsc22d3  | ENSMUSG00000031431 | TSC22 domain family, member 3 Source MGI Symbol Acc MGI 1196284                           |
| G05      | SBM0750908 | ENSMUST00000177054.7  | Usp2     | ENSMUSG0000032010  | ubiquitin specific peptidase 2 Source MGI Symbol Acc MGI 1858178                          |
| G06      | SBM0899016 | ENSMUST00000035340.11 | Usp54    | ENSMUSG0000034235  | ubiquitin specific peptidase 54 Source MGI Symbol Acc MGI 1926037                         |
| G07      | SBM0761592 | ENSMUST00000139656.1  | Vdr      | ENSMUSG0000022479  | vitamin D (1,25-dihydroxyvitamin D3) receptor Source MGI Symbol Acc MGI 103076            |
| G08      | SBM0933550 | ENSMUST00000047645.12 | Vldlr    | ENSMUSG0000024924  | very low density lipoprotein receptor Source MGI Symbol Acc MGI 98935                     |
| G09      | SBM1090997 | ENSMUST00000233621.1  | Xdh      | ENSMUSG0000024066  | xanthine dehydrogenase Source MGI Symbol Acc MGI 98973                                    |
| G10      | SBM0717742 | ENSMUST00000112046.1  | Zfp281   | ENSMUSG00000041483 | zinc finger protein 281 Source MGI Symbol Acc MGI 3029290                                 |
| G11      | SBM1072298 | ENSMUST00000209061.1  | Zfp36    | ENSMUSG0000044786  | zinc finger protein 36 Source MGI Symbol Acc MGI 99180                                    |
| G12      | SBM0838148 | ENSMUST00000127201.1  | Zhx3     | ENSMUSG0000035877  | zinc fingers and homeoboxes 3 Source MGI Symbol Acc MGI 2444772                           |
| H01      | SBM1220560 | ENSMUST00000100497.10 | Actb     | ENSMUSG0000029580  | actin, beta Source MGI Symbol Acc MGI 87904   |
| H02      | SBM0675336 | ENSMUST00000102476.4  | B2m      | ENSMUSG0000060802  | beta-2 microglobulin Source MGI Symbol Acc MGI 88127                                      |
| H03      | SBM1220562 | ENSMUST00000117757.8  | Gapdh    | ENSMUSG0000057666  | glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640                  |
| H04      | SBM1220563 | ENSMUST00000026613.13 | Gusb     | ENSMUSG0000025534  | glucuronidase, beta Source MGI Symbol Acc MGI 95872                                       |
| H05      | SBM1220564 | ENSMUST00000166469.7  | Hsp90ab1 | ENSMUSG0000023944  | heat shock protein 90 alpha (cytosolic), class B member 1 Source MGI Symbol Acc MGI 96247 |
| H06      | SBM1218554 | Sybr_MGDC             | MGDC     | Sybr_MGDC          | Mouse 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 $\mu$ l reactions: 20 $\mu$ l 8x gDNA Removal Mix, 10 $\mu$ l Reverse Transcription Enzyme, 40 $\mu$ l Reverse Transcription Mix (containing RT primers), 20 $\mu$ l Internal Control RNA, 1.9 ml RNase-Free Water                                   | 205410   |
| QuantiNova SYBR Green RT-PCR Kit (100)*    | For 100 x 20 $\mu$ l reactions: 1 ml QuantiNova SYBR Green RT-PCR Master Mix, 20 $\mu$ l QuantiNova SYBR Green RT Mix, 20 $\mu$ l Internal Control RNA, 500 $\mu$ l Yellow Template Dilution Buffer, 250 $\mu$ l ROX Reference Dye, 1.9 $\mu$ l RNase-Free Water | 208152   |
| QuantiNova SYBR Green PCR Kit (100)*       | For 100 x 20 $\mu$ l reactions: 1 ml 2x QuantiNova SYBR Green PCR Master Mix, 500 $\mu$ l QuantiNova Yellow Template Dilution Buffer, 250 $\mu$ l 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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