

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

## Mouse Antibacterial Response

Cat. no. 249950 SBMM-148ZA

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 | Akt1    | Apcs   | Birc3 | Bpi    | Comp     | Card6  | Card9   | Casp1    | Casp8    | Ccl3   | Ccl4   | Ccl5  |
| B | Cd14    | Chuk   | Crp   | Ctsb   | Cxcl1    | Cxcl3  | Dmbt1   | Fadd     | Hsp90aa1 | Ifna9  | Ifnb1  | Ikbbk |
| C | Il12a   | Il12b  | Il18  | Il1b   | Il6      | Irak1  | Irak3   | Irf5     | Irf7     | Jun    | Lbp    | Lcn2  |
| D | Ltf     | Ly96   | Lyz2  | Map2k1 | Map2k3   | Map2k4 | Map3k7  | Mapk1    | Mapk14   | Mapk3  | Mapk8  | Mefv  |
| E | Mpo     | Myd88  | Naip1 | Nfkbl  | Nfkbia   | Nlr4   | Nlrp1a  | Nlrp3    | Nod1     | Nod2   | Pik3ca | Prtm3 |
| F | Pstpip1 | Pycard | Rac1  | Rela   | Ripk1    | Ripk2  | Slc11a1 | Slpi     | Sugt1    | Ticam1 | Ticam2 | Tirap |
| G | Tlr1    | Tlr2   | Tlr4  | Tlr5   | Tlr6     | Tlr9   | Tnf     | Tnfrsf1a | Tollip   | Traf6  | Xiap   | Zbp1  |
| 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      | SBM1020452 | ENSMUST00000144550.8  | Akt1     | ENSMUSG0000001729  | thymoma viral proto-oncogene 1 Source MGI Symbol Acc MGI 87986                             |
| A02      | SBM0730529 | ENSMUST00000027824.6  | Apcs     | ENSMUSG00000026542 | serum amyloid P-component Source MGI Symbol Acc MGI 98229                                  |
| A03      | SBM0873926 | ENSMUST00000115672.1  | Birc3    | ENSMUSG00000032000 | baculoviral IAP repeat-containing 3 Source MGI Symbol Acc MGI 1197007                      |
| A04      | SBM0901267 | ENSMUST00000065039.2  | Bpi      | ENSMUSG00000052922 | bactericidal permeability increasing protein Source MGI Symbol Acc MGI 3045315             |
| A05      | SBM1078418 | ENSMUST00000112022.4  | Camp     | ENSMUSG00000038357 | cathelicidin antimicrobial peptide Source MGI Symbol Acc MGI 108443                        |
| A06      | SBM0822887 | ENSMUST00000141020.1  | Card6    | ENSMUSG00000041849 | caspase recruitment domain family, member 6 Source MGI Symbol Acc MGI 3032959              |
| A07      | SBM0745387 | ENSMUST00000028294.6  | Card9    | ENSMUSG00000026928 | caspase recruitment domain family, member 9 Source MGI Symbol Acc MGI 2685628              |
| A08      | SBM0862549 | ENSMUST00000027015.5  | Casp1    | ENSMUSG00000025888 | caspase 1 Source MGI Symbol Acc MGI 96544                                                  |
| A09      | SBM0772558 | ENSMUST00000027189.14 | Casp8    | ENSMUSG00000026029 | caspase 8 Source MGI Symbol Acc MGI 1261423                                                |
| A10      | SBM0794563 | ENSMUST00000001008.5  | Ccl3     | ENSMUSG0000000982  | chemokine (C-C motif) ligand 3 Source MGI Symbol Acc MGI 98260                             |
| A11      | SBM0939661 | ENSMUST00000019074.3  | Ccl4     | ENSMUSG00000018930 | chemokine (C-C motif) ligand 4 Source MGI Symbol Acc MGI 98261                             |
| A12      | SBM0703029 | ENSMUST00000125015.1  | Ccl5     | ENSMUSG00000035042 | chemokine (C-C motif) ligand 5 Source MGI Symbol Acc MGI 98262                             |
| B01      | SBM0904854 | ENSMUST00000061829.7  | Cd14     | ENSMUSG00000051439 | CD14 antigen Source MGI Symbol Acc MGI 88318                                               |
| B02      | SBM1034080 | ENSMUST00000026217.10 | Chuk     | ENSMUSG00000025199 | conserved helix-loop-helix ubiquitous kinase Source MGI Symbol Acc MGI 99484               |
| B03      | SBM0905444 | ENSMUST00000194251.1  | Crp      | ENSMUSG00000037942 | C-reactive protein, pentraxin-related Source MGI Symbol Acc MGI 88512                      |
| B04      | SBM0791036 | ENSMUST00000225312.1  | Ctsg     | ENSMUSG00000040314 | cathepsin G Source MGI Symbol Acc MGI 88563                                                |
| B05      | SBM0998835 | ENSMUST00000031327.8  | Cxcl1    | ENSMUSG00000029380 | chemokine (C-X-C motif) ligand 1 Source MGI Symbol Acc MGI 108068                          |
| B06      | SBM0747228 | ENSMUST00000201840.1  | Cxcl3    | ENSMUSG00000029379 | chemokine (C-X-C motif) ligand 3 Source MGI Symbol Acc MGI 3037818                         |
| B07      | SBM0833606 | ENSMUST00000084509.4  | Dmbt1    | ENSMUSG00000047517 | deleted in malignant brain tumors 1 Source MGI Symbol Acc MGI 106210                       |
| B08      | SBM0895464 | ENSMUST00000033394.7  | Fadd     | ENSMUSG00000031077 | Fas (TNFRSF6)-associated via death domain Source MGI Symbol Acc MGI 109324                 |
| B09      | SBM0939146 | ENSMUST00000155242.7  | Hsp90aa1 | ENSMUSG00000021270 | heat shock protein 90, alpha (cytosolic), class A member 1 Source MGI Symbol Acc MGI 96250 |
| B10      | SBM1062122 | ENSMUST00000102807.1  | Ifna9    | ENSMUSG00000095270 | interferon alpha 9 Source MGI Symbol Acc MGI 107659                                        |
| B11      | SBM0872658 | ENSMUST00000055671.4  | Ifnb1    | ENSMUSG00000048806 | interferon beta 1, fibroblast Source MGI Symbol Acc MGI 107657                             |
| B12      | SBM0683235 | ENSMUST00000144583.7  | Ikbbk    | ENSMUSG00000031537 | inhibitor of kappaB kinase beta Source MGI Symbol Acc MGI 1338071                          |
| C01      | SBM0806519 | ENSMUST00000107816.3  | Il12a    | ENSMUSG00000027776 | interleukin 12a Source MGI Symbol Acc MGI 96539                                            |
| C02      | SBM0957286 | ENSMUST00000102796.9  | Il12b    | ENSMUSG00000004296 | interleukin 12b Source MGI Symbol Acc MGI 96540                                            |
| C03      | SBM0953194 | ENSMUST00000180021.1  | Il18     | ENSMUSG00000039217 | interleukin 18 Source MGI Symbol Acc MGI 107936                                            |
| C04      | SBM0738485 | ENSMUST00000028881.13 | Il1b     | ENSMUSG00000027398 | interleukin 1 beta Source MGI Symbol Acc MGI 96543                                         |
| C05      | SBM0742623 | ENSMUST00000026845.11 | Il6      | ENSMUSG00000025746 | interleukin 6 Source MGI Symbol Acc MGI 96559                                              |
| C06      | SBM0933124 | ENSMUST00000148706.7  | Ilr1k1   | ENSMUSG00000031392 | interleukin-1 receptor-associated kinase 1 Source MGI Symbol Acc MGI 107420                |
| C07      | SBM0779963 | ENSMUST00000143100.1  | Ilr1k3   | ENSMUSG00000020227 | interleukin-1 receptor-associated kinase 3 Source MGI Symbol Acc MGI 1921164               |
| C08      | SBM0896474 | ENSMUST00000163511.6  | Ilr1f5   | ENSMUSG00000029771 | interferon regulatory factor 5 Source MGI Symbol Acc MGI 1350924                           |
| C09      | SBM0775971 | ENSMUST00000123525.1  | Ilr1f7   | ENSMUSG00000025498 | interferon regulatory factor 7 Source MGI Symbol Acc MGI 1859212                           |
| C10      | SBM1045409 | ENSMUST00000107094.1  | Jun      | ENSMUSG00000052684 | jun proto-oncogene Source MGI Symbol Acc MGI 96646                                         |
|          |            | ENSMUST000000         |          | ENSMUSG00          |                                                                                            |

| Position | Assay      | Name                  | Symbol  | Ensembl ID         | Description                                                                                                           |
|----------|------------|-----------------------|---------|--------------------|-----------------------------------------------------------------------------------------------------------------------|
| C11      | SBM0691558 | 146600.1              | Lbp     | 000016024          | lipopolysaccharide binding protein Source MGI Symbol Acc MGI 1098776                                                  |
| C12      | SBM0689303 | ENSMUST00000050785.13 | Lcn2    | ENSMUSG0000026822  | lipocalin 2 Source MGI Symbol Acc MGI 96757                                                                           |
| D01      | SBM0738797 | ENSMUST00000198233.1  | Ltf     | ENSMUSG00000032496 | lactotransferrin Source MGI Symbol Acc MGI 96837                                                                      |
| D02      | SBM0966348 | ENSMUST00000191260.1  | Ly96    | ENSMUSG00000025779 | lymphocyte antigen 96 Source MGI Symbol Acc MGI 1341909                                                               |
| D03      | SBM0672708 | ENSMUST00000092163.8  | Lyz2    | ENSMUSG00000069516 | lysozyme 2 Source MGI Symbol Acc MGI 96897                                                                            |
| D04      | SBM1025120 | ENSMUST00000005066.8  | Map2k1  | ENSMUSG0000004936  | mitogen-activated protein kinase kinase 1 Source MGI Symbol Acc MGI 1346866                                           |
| D05      | SBM0905391 | ENSMUST00000130269.1  | Map2k3  | ENSMUSG0000018932  | mitogen-activated protein kinase kinase 3 Source MGI Symbol Acc MGI 1346868                                           |
| D06      | SBM1084723 | ENSMUST00000046963.9  | Map2k4  | ENSMUSG0000003352  | mitogen-activated protein kinase kinase 4 Source MGI Symbol Acc MGI 1346869                                           |
| D07      | SBM0833481 | ENSMUST00000037607.10 | Map3k7  | ENSMUSG0000028284  | mitogen-activated protein kinase kinase 7 Source MGI Symbol Acc MGI 1346877                                           |
| D08      | SBM0800614 | ENSMUST00000231821.1  | Mapk1   | ENSMUSG00000063358 | mitogen-activated protein kinase 1 Source MGI Symbol Acc MGI 1346858                                                  |
| D09      | SBM0683456 | ENSMUST00000114754.7  | Mapk14  | ENSMUSG00000053436 | mitogen-activated protein kinase 14 Source MGI Symbol Acc MGI 1346865                                                 |
| D10      | SBM0856900 | ENSMUST00000206272.1  | Mapk3   | ENSMUSG00000063065 | mitogen-activated protein kinase 3 Source MGI Symbol Acc MGI 1346859                                                  |
| D11      | SBM0984642 | ENSMUST00000132379.1  | Mapk8   | ENSMUSG00000021936 | mitogen-activated protein kinase 8 Source MGI Symbol Acc MGI 1346861                                                  |
| D12      | SBM0761253 | ENSMUST00000023180.14 | Mefv    | ENSMUSG0000022534  | Mediterranean fever Source MGI Symbol Acc MGI 1859396                                                                 |
| E01      | SBM1011865 | ENSMUST00000107930.2  | Mpo     | ENSMUSG0000009350  | myeloperoxidase Source MGI Symbol Acc MGI 97137                                                                       |
| E02      | SBM0986804 | ENSMUST00000035092.6  | Myd88   | ENSMUSG00000032508 | myeloid differentiation primary response gene 88 Source MGI Symbol Acc MGI 108005                                     |
| E03      | SBM0812415 | ENSMUST00000221727.1  | Naip1   | ENSMUSG00000021640 | NLR family, apoptosis inhibitory protein 1 Source MGI Symbol Acc MGI 1298223                                          |
| E04      | SBM0841870 | ENSMUST00000164430.6  | Nfkb1   | ENSMUSG00000028163 | nuclear factor of kappa light polypeptide gene enhancer in B cells 1, p105 Source MGI Symbol Acc MGI 97312            |
| E05      | SBM0696431 | ENSMUST00000021413.8  | Nfkbia  | ENSMUSG00000021025 | nuclear factor of kappa light polypeptide gene enhancer in B cells inhibitor, alpha Source MGI Symbol Acc MGI 104741  |
| E06      | SBM0958694 | ENSMUST00000052124.8  | Nlrc4   | ENSMUSG00000039193 | NLR family, CARD domain containing 4 Source MGI Symbol Acc MGI 3036243                                                |
| E07      | SBM0968555 | ENSMUST00000048514.10 | Nlrp1a  | ENSMUSG00000069830 | NLR family, pyrin domain containing 1A Source MGI Symbol Acc MGI 2684861                                              |
| E08      | SBM0804985 | ENSMUST00000149126.1  | Nlrp3   | ENSMUSG00000032691 | NLR family, pyrin domain containing 3 Source MGI Symbol Acc MGI 2653833                                               |
| E09      | SBM0681489 | ENSMUST00000205242.1  | Nod1    | ENSMUSG00000038058 | nucleotide-binding oligomerization domain containing 1 Source MGI Symbol Acc MGI 1341839                              |
| E10      | SBM1075105 | ENSMUST00000054324.14 | Nod2    | ENSMUSG00000055994 | nucleotide-binding oligomerization domain containing 2 Source MGI Symbol Acc MGI 2429397                              |
| E11      | SBM0905151 | ENSMUST00000108243.7  | Pik3ca  | ENSMUSG00000027665 | phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha Source MGI Symbol Acc MGI 1206581              |
| E12      | SBM0782422 | ENSMUST00000006679.14 | Prtn3   | ENSMUSG00000057729 | proteinase 3 Source MGI Symbol Acc MGI 893580                                                                         |
| F01      | SBM0761397 | ENSMUST00000132800.1  | Pstpip1 | ENSMUSG00000032322 | proline-serine-threonine phosphatase-interacting protein 1 Source MGI Symbol Acc MGI 1321396                          |
| F02      | SBM0791013 | ENSMUST00000205594.1  | Pycard  | ENSMUSG00000030793 | PYD and CARD domain containing Source MGI Symbol Acc MGI 1931465                                                      |
| F03      | SBM0680406 | ENSMUST00000145709.7  | Rac1    | ENSMUSG0000001847  | Rac family small GTPase 1 Source MGI Symbol Acc MGI 97845                                                             |
| F04      | SBM0937498 | ENSMUST00000237361.1  | Rela    | ENSMUSG0000024927  | v-rel reticuloendotheliosis viral oncogene homolog A (avian) Source MGI Symbol Acc MGI 103290                         |
| F05      | SBM0953041 | ENSMUST00000167374.8  | Ripk1   | ENSMUSG00000021408 | receptor (TNFRSF)-interacting serine-threonine kinase 1 Source MGI Symbol Acc MGI 108212                              |
| F06      | SBM0781529 | ENSMUST00000037035.11 | Ripk2   | ENSMUSG00000041135 | receptor (TNFRSF)-interacting serine-threonine kinase 2 Source MGI Symbol Acc MGI 1891456                             |
| F07      | SBM1030533 | ENSMUST00000147233.7  | Slc11a1 | ENSMUSG00000026177 | solute carrier family 11 (proton-coupled divalent metal ion transporters), member 1 Source MGI Symbol Acc MGI 1345275 |
| F08      | SBM1076562 | ENSMUST00000109367.9  | Slpi    | ENSMUSG00000017002 | secretory leukocyte peptidase inhibitor Source MGI Symbol Acc MGI 109297                                              |
| F09      | SBM0757534 | ENSMUST00000226320.1  | Sugt1   | ENSMUSG00000022024 | SGT1, suppressor of G2 allele of SKP1 (S. cerevisiae) Source MGI Symbol Acc MGI 1915205                               |
| F10      | SBM0979664 | ENSMUST00000058136.8  | Ticam1  | ENSMUSG00000047123 | toll-like receptor adaptor molecule 1 Source MGI Symbol Acc MGI 2147032                                               |
|          |            |                       |         |                    |                                                                                                                       |

| Position | Assay      | Name                  | Symbol   | Ensembl ID         | Description                                                                                           |
|----------|------------|-----------------------|----------|--------------------|-------------------------------------------------------------------------------------------------------|
| F11      | SBM0972875 | ENSMUST00000149929.1  | Ticam2   | ENSMUSG00000056130 | toll-like receptor adaptor molecule 2 Source MGI Symbol Acc MGI 3040056                               |
| F12      | SBM1225397 | ENSMUST00000177129.7  | Tirap    | ENSMUSG00000032041 | toll-interleukin 1 receptor (TIR) domain-containing adaptor protein Source MGI Symbol Acc MGI 2152213 |
| G01      | SBM0864936 | ENSMUST00000059349.5  | Tlr1     | ENSMUSG00000044827 | toll-like receptor 1 Source MGI Symbol Acc MGI 1341295                                                |
| G02      | SBM0974490 | ENSMUST00000029623.10 | Tlr2     | ENSMUSG00000027995 | toll-like receptor 2 Source MGI Symbol Acc MGI 1346060                                                |
| G03      | SBM0745293 | ENSMUST00000107365.2  | Tlr4     | ENSMUSG00000039005 | toll-like receptor 4 Source MGI Symbol Acc MGI 96824                                                  |
| G04      | SBM0677822 | ENSMUST00000191820.1  | Tlr5     | ENSMUSG00000079164 | toll-like receptor 5 Source MGI Symbol Acc MGI 1858171                                                |
| G05      | SBM0968629 | ENSMUST00000201307.1  | Tlr6     | ENSMUSG00000051498 | toll-like receptor 6 Source MGI Symbol Acc MGI 1341296                                                |
| G06      | SBM0973468 | ENSMUST00000062241.10 | Tlr9     | ENSMUSG00000045322 | toll-like receptor 9 Source MGI Symbol Acc MGI 1932389                                                |
| G07      | SBM0788439 | ENSMUST00000025263.14 | Tnf      | ENSMUSG00000024401 | tumor necrosis factor Source MGI Symbol Acc MGI 104798                                                |
| G08      | SBM0837100 | ENSMUST00000134803.1  | Tnfrsf1a | ENSMUSG00000030341 | tumor necrosis factor receptor superfamily, member 1a Source MGI Symbol Acc MGI 1314884               |
| G09      | SBM0724694 | ENSMUST00000151890.2  | Tollip   | ENSMUSG00000025139 | toll interacting protein Source MGI Symbol Acc MGI 1891808                                            |
| G10      | SBM1225398 | ENSMUST00000004949.7  | Traf6    | ENSMUSG00000027164 | TNF receptor-associated factor 6 Source MGI Symbol Acc MGI 108072                                     |
| G11      | SBM0766940 | ENSMUST00000115095.8  | Xiap     | ENSMUSG00000025860 | X-linked inhibitor of apoptosis Source MGI Symbol Acc MGI 107572                                      |
| G12      | SBM1064071 | ENSMUST00000146802.1  | Zbp1     | ENSMUSG00000027514 | Z-DNA binding protein 1 Source MGI Symbol Acc MGI 1927449                                             |
| H01      | SBM1220560 | ENSMUST00000100497.10 | Actb     | ENSMUSG00000029580 | actin, beta Source MGI Symbol Acc MGI 87904                                                           |
| H02      | SBM0675336 | ENSMUST00000102476.4  | B2m      | ENSMUSG00000060802 | beta-2 microglobulin Source MGI Symbol Acc MGI 88127                                                  |
| H03      | SBM1220562 | ENSMUST00000117757.8  | Gapdh    | ENSMUSG00000057666 | glyceraldehyde-3-phosphate dehydrogenase Source MGI Symbol Acc MGI 95640                              |
| H04      | SBM1220563 | ENSMUST00000026613.13 | Gusb     | ENSMUSG00000025534 | glucuronidase, beta Source MGI Symbol Acc MGI 95872                                                   |
| H05      | SBM1220564 | ENSMUST00000166469.7  | Hsp90ab1 | ENSMUSG00000023944 | 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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