

Supplementary Figure S2 (a) Light microscopy of primary bovine mammary epithelial cells (pbMEC) (b) pbMEC immunostained against the epithelial marker cytokeratin (insert: negative control)

Supplementary Figure S3 Quantile-quantile plot of the raw Cq values on three Fluidigm BioMark™ HD Gene expression Dynamic Array 96.96 chips

Supplementary Figure S4 Distribution of Cq differences of the RT-qPCR replicates (qPCR) and the mean Cq values of cell culture replicates (cc) as a mean from all four Fluidigm BioMark™ HD Gene expression Dynamic Array 96.96 chips, for 25 high expression genes (all samples mean Cq<20, high) and 20 low expression genes (all samples mean Cq>20, low)

Supplementary Figure S5 Visualization of the mean Cq values of the calibration sample on all four Fluidigm BioMark™ Gene expression Dynamic Array 96.96 chips of 21 high expression genes (all samples mean Cq<20) and of 12 low expression genes (all samples mean Cq>20). Each symbol type represents one gene (legend not shown)

Supplementary Figure S6 Principal component analysis of the relative expression of 28 genes of the innate immune response in pbMEC stimulated with heat-inactivated mastitis pathogens including samples from all three incubation times (6 h, 30 h, 78 h) and treatments (*E. coli*, *S. aureus*, control). *E. coli* = black squares, *S. aureus* = black triangles, control = white circles