Supplementary Figure 1. Number of sequence reads that are aligned and not aligned to the reference genome for the 86 RNA-seq experiments.

Supplementary Figure 2. Scatter plots of DFI values, EdgeR p-values and DESeq p-values for all gene features (x-axis) versus genes with low (top, a,b,c) and high (bottom,d,e,f) counts excluded (y-axis).

Supplementary Figure 3. ROC curve (mean +/- standard deviation) for 100 random MAQC subsets. We randomly selected 3 samples from each of the Brain and UHR samples of MAQC dataset and calculated DFI values for the subset. Mean and range of standard deviation for 100 such calculations were shown in the figure.

Supplementary Figure 4. Scatter plot showing DFI values calculated for 86 RNA-seq experiments (x-axis) and log10 of the gene lengths.

	0 10		20	20	40	Millions	
	0	10	20	30	40	50	60
SRR037479 - UHR MAQC3 phiX D	-						
SRR037478 - UHR MAQC3 phiX D	-						
SRR037477 - UHR MAQC3 phiX D SRR037476 - UHR MAQC3 phiX C	-						
SRR037475 - UHR MAQC3 phiX C							
SRR037474 - UHR MAQC3 phiX C							
SRR037473 - UHR MAQC3 phiX C							
SRR037472 - UHR MAQC3 phiX B							
SRR037471 - UHR MAQC3 phiX B		The second second					
SRR037470 - UHR MAQC3 phiX B	1						
SRR037469 - UHR MAQC3 phiX A							
SRR037468 - UHR MAQC3 phiX A							
SRR037467 - UHR MAQC3 phiX A							
SRR037466 - UHR MAQC3 phiX A		-					
SRR037465 - UHR MAQC2 auto							
SRR037464 - UHR MAQC2 auto							
SRR037463 - UHR MAQC2 auto	_						
SRR037462 - UHR MAQC2 auto		-					
SRR037461 - UHR MAQC2 auto	_						
SRR037460 - UHR MAQC2 auto	-	100 million (1990)					
SRR037459 - UHR MAQC2 auto							
SRR037458 - Brain MAQC2 auto	-						
SRR037457 - Brain MAQC2 auto	-						
SRR037456 - Brain MAQC2 auto	-						
SRR037455 - Brain MAQC2 auto	-						
SRR037454 - Brain MAQC2 auto							
SRR037453 - Brain MAQC2 auto	-						
SRR037452 - Brain MAQC2 auto	-	The second second					
SRR037451 - UHR MAQC2 phiX SRR037450 - UHR MAQC2 phiX	-						
SRR037450 - UHR MAQC2 phiX SRR037449 - UHR MAQC2 phiX							
SRR037449 - UHR MAQC2 phiX SRR037448 - UHR MAQC2 phiX							
SRR037447 - UHR MAQC2 phiX SRR037447 - UHR MAQC2 phiX							
SRR037447 - UHR MAQC2 phiX SRR037446 - UHR MAQC2 phiX	-						
SRR037445 - UHR MAQC2 phiX	-						
SRR037444 - Brain MAQC2 phiX							
SRR037443 - Brain MAQC2 phiX SRR037443 - Brain MAQC2 phiX							
SRR037442 - Brain MAQC2 phiX							
SRR037441 - Brain MAQC2 phiX	-						
SRR037440 - Brain MAQC2 phiX							
SRR037439 - Brain MAQC2 phiX							
SRR036966 - Brain			1				
SRR035678 - Brain MAQC2 phiX		20					
SRR032127 - Liver male 3							
SRR032126 - Liver male 3							
SRR032125 - Liver male 2							
SRR032124 - Liver male 2							
SRR032123 - Liver male 1							
SRR032122 - Liver male 1							
SRR032121 - Liver female 3							
SRR032120 - Liver female 3							
SRR032119 - Liver female 2	_						
SRR032118 - Liver female 2							
SRR032117 - Liver female 1	-						
SRR032116 - Liver female 1	_		_				
SRR014266 - Skeletal Muscle	-						
SRR014265 - Lung	-						
SRR014264 - Liver SRR014263 - Heart	-						
SRR014263 - Heart SRR014262 - Cerebral Cortex	-						
SRR014262 - Cerebrai Cortex SRR007332 - K562-2	-						
SRR005096 - GM12878-2							
SRR005095 - K562-2							
SRR005094 - K562-2							
SRR005093 - K562-1							
SRR005092 - K562-1							
SRR005091 - GM12878-2							
SRR002325 - Kidney		-					
SRR002324 - Kidney		-					
SRR002323 - Liver							
SRR002322 - Liver							
SRR002321 - Liver				-			
SRR002320 - Kidney]		- 101 101	200			
SRR002073 - Hep2G-2							
SRR002069 - Hep2G-2			- 14				
SRR002068 - Hep2G-1	-						
SRR002067 - Hep2G-1							
SRR002065-K562-1	-						
SRR002063 - GM12878-2			11 1				
SRR002060 - GM12878-1							
SRR002057 - K562-2	-						
SRR002056 - K562-1							
SRR002055 - GM12878-2							
SRR002054 - GM12878-1							
				1	1		
SRR002053 - K562-1	-						
SRR002053 - K562-1 SRR002052 - GM12878-1							





