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APPENDIX A

Table A1. TaqMan® expression data. The grey shaded area represents the control samples. Expression data from invaded 2D and 3D hepatocytes are presented alongside their respective endogenous control. Data for three biological replications (n=3) of each sample are presented; the standard deviation (C_T SD) is calculated from the three technical replicates.

Sample Name	Target Name	C_T Mean	C_T SD	Target Name	C_T Mean	C_T SD
Non-invaded hepatocyte controls						
2D control	β -Actin	28.97	0.00			
3D control	β -Actin	30.24	0.09			
Parasite controls						
Sporozoite only	18S rRNA	32.38	*			
5 % Parasitemia	18S rRNA	20.10	0.13			
2.5 % Parasitemia	18S rRNA	20.37	0.09			
1 % Parasitemia	18S rRNA	20.97	0.02			
0.1% Parasitemia	18S rRNA	28.82	0.62			
0.01 % Parasitemia	18S rRNA	40.52	0.82			
Invaded 2D hepatocytes				Hepatocyte control		
2D Day 3	18S rRNA	48.28	**	β -Actin	29.78	0.08
2D Day 3	18S rRNA	49.53	**	β -Actin	29.66	0.03
2D Day 3	18S rRNA	46.94	**	β -Actin	30.78	0.05
2D Day 7	18S rRNA	44.98	**	β -Actin	30.72	0.03
2D Day 7	18S rRNA	48.74	0.21	β -Actin	29.58	0.11
2D Day 7	18S rRNA	ND		β -Actin	30.54	0.11
Invaded 3D hepatocytes				Hepatocyte control		
3D Day 3	18S rRNA	ND		β -Actin	29.75	0.09
3D Day 3	18S rRNA	ND		β -Actin	29.60	0.04
3D Day 3	18S rRNA	ND		β -Actin	29.68	0.11
3D Day 7	18S rRNA	ND		β -Actin	30.32	0.07
3D Day 7	18S rRNA	ND		β -Actin	29.96	0.15
3D Day 7	18S rRNA	ND		β -Actin	30.22	0.09

* Due to limited sample volume this control was initially not run in triplicate thus, the C_T SD was not calculated.

** Due to the assumed low abundance of the 18S rRNA target in the samples, this gene was not detected in each and every technical replicate thus the C_T SD was not calculated.

ND: Not determined.

Appendix A

Table A2. TaqMan® expression data for increased primer and probe concentrations. The grey shaded area represents the control samples. Data for three biological replications (n=3) of each sample are presented; the standard deviation (C_T SD) is calculated from the three technical replicates.

Sample Name	Target Name	C_T Mean	C_T SD
Parasite control			
Sporozoite only	18S rRNA	36.90	0.09
Invaded 2D hepatocytes			
2D Day 3 50 nM probe	18S rRNA	49.44	0.26
2D Day 7 50 nM probe	18S rRNA	52.05	0.80
2D day 3 200 nM probe	18S rRNA	53.05	2.00
2D day 7 200 nM probe	18S rRNA	49.92	0.97
Invaded 3D hepatocytes			
3D Day 3 50 nM probe	18S rRNA	ND	
3D Day 7 50 nM probe	18S rRNA	ND	
3D day 3 200 nM probe	18S rRNA	ND	
3D day 7 200 nM probe	18S rRNA	ND	

Appendix A

Table A3. TaqMan® expression data from invaded cells growing in 2D and nylon scaffolds. The grey shaded area represents the control samples. Expression data from invaded 2D and 3D hepatocytes are presented alongside their respective endogenous control. Data for three biological replications of each sample are presented the standard deviation (C_T SD) is calculated from the three technical replicates

Sample Name	Target Name	C_T Mean	C_T SD	Target Name	C_T Mean	C_T SD
Non-invaded hepatocyte controls						
2D control	β -Actin	29.47	0.02			
3D control	β -Actin	31.12	0.20			
Parasite controls						
Sporozoite only	18srRNA	32.80	*			
5% Parasitemia	18srRNA	19.98	0.17			
2.5% Parasitemia	18srRNA	21.03	0.05			
1% Parasitemia	18srRNA	21.23	0.06			
0.1% Parasitemia	18srRNA	32.78	1.11			
0.01% Parasitemia	18srRNA	33.63	1.29			
Invaded 2D hepatocytes				Hepatocyte control		
2D Day 3	18srRNA	48.53	3.05	β -Actin	31.10	0.32
2D day 3	18srRNA	48.64	3.13	β -Actin	29.93	0.04
2D day 3	18srRNA	49.78	2.03	β -Actin	30.91	0.31
2D day 7	18srRNA	49.07	**	β -Actin	30.35	0.17
2D day 7	18srRNA	47.04	0.28	β -Actin	28.35	0.03
2D day 7	18srRNA	48.82	1.93	β -Actin	28.97	0.16
Invaded 3D hepatocytes				Hepatocyte control		
3D day 3	18srRNA	ND		β -Actin	28.83	0.02
3D day 3	18srRNA	ND		β -Actin	28.85	0.04
3D day 3	18srRNA	ND		β -Actin	27.74	0.04
3D day 7	18srRNA	ND		β -Actin	29.39	0.08
3D day 7	18srRNA	ND		β -Actin	29.37	0.13
3D day 7	18srRNA	ND		β -Actin	28.89	0.10

* Due to limited sample this control was not run in triplicate thus the C_T SD was not calculated.

** Due to the assumed low abundance of the 18S rRNA target in the samples, this gene was not detected in each and every technical replicate thus the C_T SD was not calculated.

ND: Not determined.