

Table S2. Significance tests comparing NF3 and NF2 normalization of an unstably expressed target gene (Hsp)

Hsp x NF2							
Tests of Between-Subjects Effects							
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power <sup>a</sup>
Corrected Model	990.632 <sup>a</sup>	28	35.380	21.529	.000	602.806	1.000
Intercept	712.249	1	712.249	433.408	.000	433.408	1.000
Time	510.758	4	127.690	77.700	.000	310.800	1.000
Treatment	112.677	2	56.339	34.282	.000	68.565	1.000
Assay	31.555	2	15.778	9.601	.000	19.202	.976
Time * Treatment	206.342	8	25.793	15.695	.000	125.560	1.000
Time * Assay	121.526	8	15.191	9.244	.000	73.949	1.000
Treatment * Assay	7.774	4	1.943	1.183	.327	4.730	.349
Error	100.245	61	1.643				
Total	1803.127	90					
Corrected Total	1090.878	89					

a. R Squared = .908 (Adjusted R Squared = .866)

b. Computed using alpha = .05

Pairwise Comparisons							
Time	Control	IBA	IBA+SHAM	Mean Difference (I-J)	Std. Error	Sig. <sup>b</sup>	95% Confidence Interval for Lower Bound Upper Bound
0	Control	IBA	IBA+SHAM	-1.583E-16	.740	1.000	-1.822 1.822
		IBA	IBA+SHAM	1.470E-15	.740	1.000	-1.822 1.822
		IBA	IBA+SHAM	1.583E-16	.740	1.000	-1.822 1.822
4h	Control	IBA	IBA+SHAM	1.628E-15	.740	1.000	-1.822 1.822
		IBA	IBA+SHAM	-1.470E-15	.740	1.000	-1.822 1.822
		IBA	IBA+SHAM	-1.628E-15	.740	1.000	-1.822 1.822
1d	Control	IBA	IBA+SHAM	-6.596 <sup>a</sup>	.740	.000	-8.418 -4.774
		IBA	IBA+SHAM	-8.575 <sup>a</sup>	.740	.000	-10.397 -6.753
		IBA	IBA+SHAM	6.596 <sup>a</sup>	.740	.000	4.774 8.418
2d	Control	IBA	IBA+SHAM	-1.979 <sup>a</sup>	.740	.029	-3.801 -.157
		IBA	IBA+SHAM	8.575 <sup>a</sup>	.740	.000	6.753 10.397
		IBA	IBA+SHAM	1.979 <sup>a</sup>	.740	.029	-.157 3.801
4d	Control	IBA	IBA+SHAM	-4.425 <sup>a</sup>	.740	1.000	-1.397 2.247
		IBA	IBA+SHAM	-3.926 <sup>a</sup>	.740	.000	-5.750 -2.106
		IBA	IBA+SHAM	-4.425 <sup>a</sup>	.740	1.000	-2.247 1.397
1d	Control	IBA	IBA+SHAM	-4.353 <sup>a</sup>	.740	.000	-6.175 -2.531
		IBA	IBA+SHAM	3.926 <sup>a</sup>	.740	.000	2.106 5.750
		IBA	IBA+SHAM	4.353 <sup>a</sup>	.740	.000	2.531 6.175
2d	Control	IBA	IBA+SHAM	.773	.740	.902	-1.049 2.595
		IBA	IBA+SHAM	-.825	.740	.808	-2.647 .997
		IBA	IBA+SHAM	-.773	.740	.902	-2.595 1.049
4d	Control	IBA	IBA+SHAM	-1.598	.740	.104	-3.420 2.24
		IBA	IBA+SHAM	.825	.740	.808	-.997 2.647
		IBA	IBA+SHAM	1.598	.740	.104	-2.24 3.420
1d	Control	IBA	IBA+SHAM	.030	.740	1.000	-1.792 1.852
		IBA	IBA+SHAM	-.276	.740	1.000	-2.098 1.547
		IBA	IBA+SHAM	-.030	.740	1.000	-1.852 1.792
4d	Control	IBA	IBA+SHAM	-.306	.740	1.000	-2.128 1.516
		IBA	IBA+SHAM	.276	.740	1.000	-1.547 2.098
		IBA	IBA+SHAM	-.306	.740	1.000	-1.516 2.128

Based on estimated marginal means

\*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Pairwise Comparisons											
Dependent Vari		HspαNF2						95% Confidence Interval for			
Treatment		Mean Difference (I-J)	Std. Error	Sig. <sup>b</sup>	Lower Bound	Upper Bound					
Control	0	4h	-.938	.740	1.000	-3.094	1.218				
		1d	-.356	.740	1.000	-2.512	1.799				
		2d	-.094	.740	1.000	-2.249	2.062				
		4d	.586	.740	1.000	-1.570	2.742				
		4h	0	.938	.740	1.000	-1.218	3.094			
			1d	.582	.740	1.000	-1.574	2.737			
			2d	.845	.740	1.000	-1.311	3.000			
			4d	1.524	.740	.437	-.632	3.680			
		1d	0	-.356	.740	1.000	-1.799	2.512			
			4h	-.582	.740	1.000	-2.737	1.574			
			2d	.263	.740	1.000	-1.893	2.419			
			4d	.943	.740	1.000	-1.213	3.098			
	2d	0	-.094	.740	1.000	-2.062	2.249				
		4h	-.845	.740	1.000	-3.000	1.311				
		IBA	0	1d	-.263	.740	1.000	-2.419	1.893		
				4d	.680	.740	1.000	-1.476	2.835		
	2d			0	.586	.740	1.000	-2.742	1.570		
	4h			0	-1.524	.740	.437	-3.680	.632		
	4h		1d	-.943	.740	1.000	-3.098	1.213			
			2d	0	-.680	.740	1.000	-2.835	1.476		
			4h	0	-7.534 <sup>a</sup>	.740	.000	-9.690	-5.378		
			1d	0	.068	.740	1.000	-2.088	2.224		
	1d		2d	.679	.740	1.000	-1.477	2.835			
			4d	0	.616	.740	1.000	-1.539	2.772		
2d			0	7.534 <sup>a</sup>	.740	.000	5.378	9.690			
			4h	1d	7.602 <sup>a</sup>	.740	.000	5.446	9.758		
	2d	0	8.213 <sup>a</sup>	.740	.000	6.057	10.369				
	4d	0	8.150 <sup>a</sup>	.740	.000	5.995	10.306				
IBA+SHAM	0	4h	0	-.068	.740	1.000	-2.224	2.088			
		1d	0	-7.602 <sup>a</sup>	.740	.000	-9.758	-5.446			
		2d	0	.611	.740	1.000	-1.545	2.767			
		4d	0	.548	.740	1.000	-1.608	2.704			
	4h	0	-.679	.740	1.000	-2.835	1.477				
		1d	0	-8.213 <sup>a</sup>	.740	.000	-10.369	-6.057			
		2d	0	-.611	.740	1.000	-2.767	1.545			
		4d	0	-.063	.740	1.000	-2.219	2.093			
	1d	0	0	.616	.740	1.000	-2.772	1.539			
		4h	0	-8.150 <sup>a</sup>	.740	.000	-10.306	-5.995			
		2d	0	-.548	.740	1.000	-2.704	1.608			
		4d	0	.063	.740	1.000	-2.093	2.219			
IBA+SHAM	0	4h	0	-9.513 <sup>a</sup>	.740	.000	-11.669	-7.357			
		1d	0	-4.284 <sup>a</sup>	.740	.000	-6.440	-2.129			
		2d	0	-.918	.740	1.000	-3.074	1.237			
		4d	0	.311	.740	1.000	-1.845	2.466			
	4h	0	9.513 <sup>a</sup>	.740	.000	7.357	11.669				
		1d	0	5.229 <sup>a</sup>	.740	.000	3.073	7.385			
		2d	0	8.595 <sup>a</sup>	.740	.000	6.439	10.750			
		4d	0	9.824 <sup>a</sup>	.740	.000	7.668	11.980			
	1d	0	4.284 <sup>a</sup>	.740	.000	2.129	6.440				
		4h	0	-5.229 <sup>a</sup>	.740	.000	-7.385	-3.073			
		2d	0	3.366 <sup>a</sup>	.740	1.000	1.210	5.522			
		4d	0	4.595 <sup>a</sup>	.740	.000	2.439	6.751			
IBA+SHAM	0	2d	0	.918	.740	1.000	-1.237	3.074			
		4h	0	-8.595 <sup>a</sup>	.740	.000	-10.750	-6.439			
		1d	0	-3.366 <sup>a</sup>	.740	.000	-5.522	-1.210			
		4d	0	1.229	.740	1.000	-.927	3.385			
	4d	0	0	-.311	.740	1.000	-2.466	1.845			
		1d	0	-9.824 <sup>a</sup>	.740	.000	-11.980	-7.668			
		2d	0	-4.595 <sup>a</sup>	.740	.000	-6.751	-2.439			
		4d	0	-1.229	.740	1.000	-3.385	.927			

Based on estimated marginal means

\*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Hsp x NF3							
Tests of Between-Subjects Effects							
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Noncent. Parameter	Observed Power <sup>a</sup>
Corrected Model	55.295 <sup>a</sup>	28	1.975	7.678	.000	214.981	1.000
Intercept	107.026	1	107.026	416.105	.000	416.105	1.000
Time	27.228	4	6.807	26.465	.000	105.859	1.000
Treatment	8.291	2	4.146	16.118	.000	32.235	.998
Assay	1.237	2	.618	2.405	.122	4.809	.414
Time * Treatment	12.579	8	1.572	6.113	.001	48.908	.991
Time * Assay	5.863	8	.733	2.850	.036	22.796	.789
Treatment * Assay	.096	4	.024	.094	.983	.374	.065
Error	4.115	16	.257				
Total	166.436	45					
Corrected Total	59.410	44					

a. R Squared = .931 (Adjusted R Squared = .810)

b. Computed using alpha = .05

Pairwise Comparisons							
Dependent Vari HspαNF3							
Time			Mean		Sig. <sup>a</sup>	95% Confidence Interval for	
			Difference (I-J)	Std. Error		Lower Bound	Upper Bound
0	Control	IBA	-2.350E-16	.414	1.000	-1.107	1.107
		IBA+SHAM	5.739E-16	.414	1.000	-1.107	1.107
		IBA	2.350E-16	.414	1.000	-1.107	1.107
	IBA+SHAM	IBA+SHAM	8.090E-16	.414	1.000	-1.107	1.107
		Control	-5.739E-16	.414	1.000	-1.107	1.107
		IBA	-8.090E-16	.414	1.000	-1.107	1.107
4h	Control	IBA	-1.876	.414	.001	-2.983	-.769
		IBA+SHAM	-3.027	.414	.000	-4.134	-1.920
		IBA	1.876	.414	.001	-.769	2.983
	IBA+SHAM	IBA+SHAM	-1.151	.414	.040	-2.258	-.044
		Control	3.027	.414	.000	1.920	4.134
		IBA	1.151	.414	.040	.044	2.258
1d	Control	IBA	.224	.414	1.000	-.883	1.331
		IBA+SHAM	-1.515	.414	.006	-2.622	-.408
		IBA	-.224	.414	1.000	-1.331	.883
	IBA+SHAM	IBA+SHAM	-1.739	.414	.002	-2.846	-.632
		Control	1.515	.414	.006	.408	2.622
		IBA	1.739	.414	.002	.632	2.846
2d	Control	IBA	.642	.414	.423	-.465	1.748
		IBA+SHAM	-.331	.414	1.000	-1.437	.776
		IBA	-.642	.414	.423	-1.748	.465
	IBA+SHAM	IBA+SHAM	-.972	.414	.096	-2.079	1.135
		Control	.331	.414	1.000	-.776	1.437
		IBA	.972	.414	.096	-.135	2.079
4d	Control	IBA	.065	.414	1.000	-1.042	1.172
		IBA+SHAM	-.079	.414	1.000	-1.186	1.028
		IBA	-.065	.414	1.000	-1.172	1.042
	IBA+SHAM	IBA+SHAM	-1.444	.414	1.000	-1.251	.963
		Control	.079	.414	1.000	-1.028	1.186
		IBA	-.144	.414	1.000	-.963	1.251

Dependent Vari Hsp $\alpha$ NF2				Pairwise Comparisons				
Time				Mean	Std. Error	Sig. <sup>a</sup>	95% Confidence Interval for	
				Difference (I-J)			Lower Bound	Upper Bound
0	Control	I	III	-.720	.876	1.000	-2.876	1.436
			II	-1.023	.876	.742	-3.179	1.133
		III	I	.720	.876	1.000	-1.436	2.876
			II	-.303	.876	1.000	-2.459	1.853
		II	I	1.023	.876	.742	-1.133	3.179
			III	.303	.876	1.000	-1.853	2.459
	IBA	I	III	-.892	.876	.937	-3.048	1.264
			II	-.887	.876	.945	-3.043	1.269
		III	I	.892	.876	.937	-1.264	3.048
			II	.005	.876	1.000	-2.151	2.161
		II	I	.887	.876	.945	-1.269	3.043
			III	-.005	.876	1.000	-2.161	2.151
	IBA+SHAM	I	III	-.014	.876	1.000	-2.170	2.142
			II	.548	.876	1.000	-1.608	2.704
		III	I	.014	.876	1.000	-2.142	2.170
			II	.562	.876	1.000	-1.594	2.717
		II	I	-.548	.876	1.000	-2.704	1.608
			III	-.562	.876	1.000	-2.717	1.594
4h	Control	I	III	5.054 <sup>c</sup>	.876	.000	2.899	7.210
			II	6.192 <sup>c</sup>	.876	.000	4.036	8.348
		III	I	-5.054 <sup>c</sup>	.876	.000	-7.210	-2.899
			II	-1.137 <sup>c</sup>	.876	.597	-1.018	3.293
		II	I	-6.192 <sup>c</sup>	.876	.000	-8.348	-4.036
			III	-1.137 <sup>c</sup>	.876	.597	-3.293	1.018
	IBA	I	III	4.882 <sup>c</sup>	.876	.000	2.726	7.038
			II	6.328 <sup>c</sup>	.876	.000	4.172	8.484
		III	I	-4.882 <sup>c</sup>	.876	.000	-7.038	-2.726
			II	1.445	.876	.312	-.710	3.601
		II	I	-6.328 <sup>c</sup>	.876	.000	-8.484	-4.172
			III	-1.445	.876	.312	-3.601	7.10
	IBA+SHAM	I	III	5.760 <sup>c</sup>	.876	.000	3.604	7.916
			II	7.763 <sup>c</sup>	.876	.000	5.607	9.918
		III	I	-5.760 <sup>c</sup>	.876	.000	-7.916	-3.604
			II	2.002	.876	.077	-.154	4.158
		II	I	-7.763 <sup>c</sup>	.876	.000	-9.918	-5.607
			III	-2.002	.876	.077	-4.158	1.54
1d	Control	I	III	-.350	.876	1.000	-2.506	1.806
			II	-.307	.876	1.000	-2.463	1.848
		III	I	.350	.876	1.000	-1.806	2.506
			II	.042	.876	1.000	-2.114	2.198
		II	I	.307	.876	1.000	-1.848	2.463
			III	-.042	.876	1.000	-2.198	2.114
	IBA	I	III	-.522	.876	1.000	-2.678	1.634
			II	-.172	.876	1.000	-2.327	1.984
		III	I	.522	.876	1.000	-1.634	2.678
			II	.350	.876	1.000	-1.805	2.506
		II	I	.172	.876	1.000	-1.984	2.327
			III	-.350	.876	1.000	-2.506	1.805
	IBA+SHAM	I	III	.356	.876	1.000	-1.800	2.512
			II	1.263	.876	.463	-.893	3.419
		III	I	-.356	.876	1.000	-2.512	1.800
			II	.907	.876	.913	-1.249	3.063
		II	I	-1.263	.876	.463	-3.419	.893
			III	-.907	.876	.913	-3.063	1.249
2d	Control	I	III	-.111	.876	1.000	-2.267	2.045
			II	-.176	.876	1.000	-2.331	1.980
		III	I	.111	.876	1.000	-2.045	2.267
			II	-.065	.876	1.000	-2.221	2.091
		II	I	.176	.876	1.000	-1.980	2.331
			III	.065	.876	1.000	-2.091	2.221
	IBA	I	III	-.283	.876	1.000	-2.439	1.873
			II	-.040	.876	1.000	-2.196	2.116
		III	I	.283	.876	1.000	-1.873	2.439
			II	.243	.876	1.000	-1.913	2.399
		II	I	.040	.876	1.000	-2.116	2.196
			III	-.243	.876	1.000	-2.399	1.913
	IBA+SHAM	I	III	.595	.876	1.000	-1.561	2.751
			II	1.395	.876	.349	-.761	3.551
		III	I	-.595	.876	1.000	-2.751	1.561
			II	.800	.876	1.000	-1.356	2.956
		II	I	-1.395	.876	.349	-3.551	761
			III	-.800	.876	1.000	-2.956	1.356
4d	Control	I	III	-.144	.876	1.000	-2.300	2.012
			II	-.379	.876	1.000	-2.535	1.777
		III	I	.144	.876	1.000	-2.012	2.300
			II	-.235	.876	1.000	-2.391	1.921
		II	I	.379	.876	1.000	-1.777	2.535
			III	.235	.876	1.000	-1.921	2.391
	IBA	I	III	-.316	.876	1.000	-2.472	1.839
			II	-.243	.876	1.000	-2.399	1.913
		III	I	.316	.876	1.000	-1.839	2.472
			II	.073	.876	1.000	-2.083	2.229
		II	I	.243	.876	1.000	-1.913	2.399
			III	-.073	.876	1.000	-2.229	2.083
	IBA+SHAM	I	III	.562	.876	1.000	-1.594	2.718
			II	1.192	.876	.536	-.964	3.348
		III	I	-.562	.876	1.000	-2.718	1.594
			II	.630	.876	1.000	-1.526	2.786
		II	I	-1.192	.876	.536	-3.348	.964
			III	-.630	.876	1.000	-2.786	1.526

Based on estimated marginal means

\*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

Dependent Vari HspNF3				Pairwise Comparisons				
Time				Mean	Std. Error	Sig. <sup>b</sup>	95% Confidence Interval for	
				Difference (I-J)			Lower Bound	Upper Bound
0	Control	I	III	-.116	.490	1.000	-1.426	1.194
			II	-.379	.490	1.000	-1.689	.931
		III	I	.116	.490	1.000	-1.194	1.426
			II	-.263	.490	1.000	-1.573	1.046
		II	I	.379	.490	1.000	-.931	1.689
			III	.263	.490	1.000	-1.046	1.573
	IBA	I	III	-.347	.490	1.000	-1.657	.963
			II	-.423	.490	1.000	-1.733	.887
		III	I	.347	.490	1.000	-.963	1.657
			II	-.076	.490	1.000	-1.386	1.234
		II	I	.423	.490	1.000	-.887	1.733
			III	.076	.490	1.000	-1.234	1.386
	IBA+SHAM	I	III	-.288	.490	1.000	-1.598	1.022
			II	-.346	.490	1.000	-1.655	.964
		III	I	.288	.490	1.000	-1.022	1.598
			II	-.058	.490	1.000	-1.368	1.252
		II	I	.346	.490	1.000	-.964	1.655
			III	.058	.490	1.000	-1.252	1.368
4h	Control	I	III	1.495 <sup>c</sup>	.490	.023	.186	2.805
			II	2.091 <sup>c</sup>	.490	.002	.782	3.401
		III	I	-1.495 <sup>c</sup>	.490	.023	-2.805	-.186
			II	-.596	.490	.724	-.714	1.906
		II	I	-2.091 <sup>c</sup>	.490	.002	-3.401	-.782
			III	-.596	.490	.724	-1.906	.714
	IBA	I	III	1.264	.490	.060	-.045	2.574
			II	2.048 <sup>c</sup>	.490	.002	.738	3.357
		III	I	-1.264	.490	.060	-.252	2.093
			II	-.783	.490	.388	-.526	2.093
		II	I	-2.048 <sup>c</sup>	.490	.002	-3.357	-.738
			III	-.783	.490	.388	-2.093	.526
	IBA+SHAM	I	III	1.323 <sup>c</sup>	.490	.047	.014	2.633
			II	2.125 <sup>c</sup>	.490	.002	.815	3.434
		III	I	-1.323 <sup>c</sup>	.490	.047	-2.633	-.014
			II	.801	.490	.364	-.508	2.111
		II	I	-2.125 <sup>c</sup>	.490	.002	-3.434	-.815
			III	-.801	.490	.364	-2.111	.508
1d	Control	I	III	.089	.490	1.000	-1.221	1.399
			II	.062	.490	1.000	-1.248	1.371
		III	I	-.089	.490	1.000	-1.399	1.221
			II	-.027	.490	1.000	-1.337	1.282
		II	I	-.062	.490	1.000	-1.371	1.248
			III	.027	.490	1.000	-1.282	1.337
	IBA	I	III	-.142	.490	1.000	-1.452	1.168
			II	.018	.490	1.000	-1.292	1.327
		III	I	.142	.490	1.000	-1.168	1.452
			II	.160	.490	1.000	-1.150	1.470
		II	I	-.018	.490	1.000	-1.327	1.292
			III	-.160	.490	1.000	-1.470	1.150
	IBA+SHAM	I	III	-.083	.490	1.000	-1.227	1.093
			II	.095	.490	1.000	-1.215	1.405
		III	I	.083	.490	1.000	-1.227	1.393
			II	.178	.490	1.000	-.132	1.488
		II	I	-.095	.490	1.000	-1.405	1.215
			III	-.178	.490	1.000	-1.488	1.132
2d	Control	I	III	.055	.490	1.000	-1.255	1.364
			II	.184	.490	1.000	-1.126	1.493
		III	I	-.055	.490	1.000	-1.364	1.255
			II	.129	.490	1.000	-1.181	1.439
		II	I	-.184	.490	1.000	-1.493	1.126
			III	-.129	.490	1.000	-1.439	1.181
	IBA	I	III	-.177	.490	1.000	-1.486	1.133
			II	.140	.490	1.000	-1.170	1.448
		III	I	-.177	.490	1.000	-1.133	1.448
			II	.177	.490	1.000	-.993	1.626
		II	I	-.140	.490	1.000	-1.449	1.170
			III	-.316	.490	1.000	-1.626	.993
	IBA+SHAM	I	III	-.117	.490	1.000	-1.427	1.192
			II	.217	.490	1.000	-1.093	1.527
		III	I	-.117	.490	1.000	-1.192	1.427
			II	.334	.490	1.000	-.975	1.644
		II	I	-.217	.490	1.000	-1.527	1.093
			III	-.334	.490	1.000	-1.644	.975
4d	Control	I	III	.172	.490	1.000	-1.138	1.482
			II	.091	.490	1.000	-1.219	1.400
		III	I	-.172	.490	1.000	-1.482	1.138
			II	-.081	.490	1.000	-1.391	1.228
		II	I	-.091	.490	1.000	-1.400	1.219
			III	.081	.490	1.000	-1.228	1.391
	IBA	I	III	-.059	.490	1.000	-1.369	1.250
			II	.047	.490	1.000	-1.263	1.356
		III	I	.059	.490	1.000	-1.250	1.369
			II	.106	.490	1.000	-1.204	1.416
		II	I	-.047	.490	1.000	-1.356	1.263
			III	-.106	.490	1.000	-1.416	1.204
	IBA+SHAM	I	III	.000	.490	1.000	-1.310	1.310
			II	.124	.490	1.000	-.186	1.434
		III	I	.000	.490	1.000	-1.310	1.310
			II	.124	.490	1.000	-.186	1.434
		II	I	-.124	.490	1.000	-1.434	1.186
			III	-.124	.490	1.000	-1.434	1.186