

## Supplementary File

**Title: Evidence of nitrite acting as a stable and robust inducer of non-cultivability in *Mycobacterium tuberculosis* with physiological relevance**

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**Table S1: Genes up regulated in *M. tuberculosis* after 1 day of nitrite exposure**

Ra_ID	Probe Name	Gene Name	GeoMean_1D	P-Value
MRA_RS00705	Rv3118	<i>sseC1</i>	1.87	0.000
MRA_RS00785	Rv1854c	<i>Ndh</i>	2.33	0.000
MRA_RS04310	Rv1197	<i>esxK</i>	1.76	0.002
MRA_RS04500	Rv2256c	<i>Rv2256c</i>	1.69	0.002
MRA_RS05725	MTB000020	<i>Rrl</i>	2.00	0.002
MRA_RS01020	Rv2617c	<i>Rv2617c</i>	3.54	0.000
MRA_RS01030	Rv2391	<i>nirA</i>	1.58	0.000
MRA_RS01135	Rv2107	<i>pe22</i>	1.88	0.000
MRA_RS01180	Rv3614c	<i>Rv3614c</i>	3.59	0.000
MRA_RS08205	Rv1980c	<i>mpt64</i>	1.58	0.005
MRA_RS01345	Rv0896	<i>gltA2</i>	1.52	0.000
MRA_RS01470	Rv3290c	<i>lat</i>	2.84	0.001
MRA_RS01530	Rv0244c	<i>fadE5</i>	1.94	0.001
MRA_RS01535	Rv1793	<i>esxN</i>	1.83	0.001
MRA_RS07910	Rv3416	<i>whiB3</i>	2.17	0.004
MRA_RS01665	Rv3871	<i>Rv3871</i>	2.56	0.001
MRA_RS02155	Rv2392	<i>cysH</i>	1.51	0.001

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS02195	Rv3616c	<i>Rv3616c</i>	3.72	0.001
MRA_RS02435	Rv3619c	<i>esxI</i>	2.00	0.001
MRA_RS05630	Rv3914	<i>trxC</i>	1.66	0.002
MRA_RS05705	Rv0188	<i>Rv0188</i>	2.02	0.002
MRA_RS02460	Rv3053c	<i>nrdH</i>	2.19	0.001
MRA_RS02495	Rv1198	<i>esxL</i>	2.30	0.001
MRA_RS02545	Rv1435c	<i>Rv1435c</i>	2.08	0.001
MRA_RS02550	Rv1405c	<i>Rv1405c</i>	2.42	0.001
MRA_RS02575	Rv2108	<i>ppe36</i>	1.55	0.001
MRA_RS03320	Rv2558	<i>Rv2558</i>	1.55	0.001
MRA_RS04005	Rv3205c	<i>Rv3205c</i>	1.69	0.001
MRA_RS04010	Rv2204c	<i>Rv2204c</i>	1.56	0.001
MRA_RS04145	Rv2496c	<i>pdhB</i>	2.01	0.001
MRA_RS04180	Rv0129c	<i>fbpC</i>	2.59	0.001
MRA_RS04745	Rv2590	<i>fadD9</i>	2.84	0.002
MRA_RS04790	Rv3620c	<i>esxM</i>	1.74	0.002
MRA_RS04920	Rv1076	<i>lipU</i>	1.52	0.002
MRA_RS04925	Rv1925	<i>fadD31</i>	1.51	0.002
MRA_RS04935	Rv3251c	<i>rubA</i>	4.69	0.002
MRA_RS06140	Rv3249c	<i>Rv3249c</i>	4.02	0.002
MRA_RS06185	Rv3250c	<i>rub</i>	4.60	0.002
MRA_RS06360	Rv3045	<i>adhC</i>	2.10	0.003
MRA_RS07775	Rv3241c	<i>Rv3241c</i>	2.37	0.004
MRA_RS06370	Rv3054c	<i>Rv3054c</i>	3.03	0.003

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS06375	Rv3289c	<i>Rv3289c</i>	2.54	0.003
MRA_RS07780	Rv1698	<i>Rv1698</i>	1.52	0.004
MRA_RS06495	Rv2620c	<i>Rv2620c</i>	1.59	0.003
MRA_RS06895	Rv0485	<i>Rv0485</i>	2.43	0.003
MRA_RS06930	Rv3248c	<i>sahH</i>	2.27	0.003
MRA_RS07150	Rv2347c	<i>esxJ</i>	1.79	0.003
MRA_RS08460	Rv0928	<i>pstS3</i>	2.04	0.005
MRA_RS07315	MRA_2676	-	1.88	0.003
MRA_RS07405	Rv0491	<i>regX3</i>	1.80	0.003
MRA_RS07435	Rv3615c	<i>Rv3615c</i>	3.59	0.003
MRA_RS07470	Rv1221	<i>sigE</i>	1.89	0.003
MRA_RS07500	Rv1697	<i>Rv1697</i>	1.77	0.003
MRA_RS07540	Rv0211	<i>pckA</i>	2.08	0.004
MRA_RS07790	Rv2393	<i>Rv2393</i>	2.03	0.004
MRA_RS07800	Rv2927c	<i>Rv2927c</i>	2.10	0.004
MRA_RS08665	Rv0467	<i>icl</i>	2.27	0.005
MRA_RS08970	Rv1544	<i>Rv1544</i>	1.67	0.005
MRA_RS08975	Rv3613c	<i>Rv3613c</i>	1.99	0.005
MRA_RS09685	Rv2619c	<i>Rv2619c</i>	1.89	0.006
MRA_RS09465	Rv2334	<i>cysK1</i>	1.57	0.005
MRA_RS09485	Rv0251c	<i>hsp</i>	1.50	0.005
MRA_RS09495	Rv0140	<i>Rv0140</i>	2.81	0.006
MRA_RS09515	Rv2780	<i>ald</i>	3.14	0.006
MRA_RS11690	Rv2428	<i>ahpC</i>	1.82	0.008

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS11980	Rv2707	<i>Rv2707</i>	2.14	0.008
MRA_RS11465	Rv1072	<i>Rv1072</i>	1.55	0.008
MRA_RS09820	Rv3052c	<i>nrdI</i>	2.22	0.006
MRA_RS09950	Rv1195	<i>pe13</i>	1.87	0.006
MRA_RS10020	Rv2499c	<i>Rv2499c</i>	1.74	0.006
MRA_RS10040	Rv1894c	<i>Rv1894c</i>	2.03	0.006
MRA_RS10165	Rv1466	<i>Rv1466</i>	1.96	0.006
MRA_RS10175	Rv0815c	<i>cysA2</i>	1.56	0.006
MRA_RS11165	Rv2202c	<i>adoK</i>	2.12	0.007
MRA_RS11170	Rv3252c	<i>alkB</i>	3.43	0.007
MRA_RS11205	Rv3463	<i>Rv3463</i>	3.15	0.007
MRA_RS11585	Rv3810	<i>pirG</i>	1.89	0.008
MRA_RS12345	Rv2466c	<i>Rv2466c</i>	1.95	0.009
MRA_RS12935	Rv2710	<i>sigB</i>	1.94	0.010
MRA_RS12475	Rv3051c	<i>nrdE</i>	2.07	0.009
MRA_RS13135	Rv2621c	<i>Rv2621c</i>	2.23	0.010
MRA_RS12710	Rv0784	<i>Rv0784</i>	2.00	0.009
MRA_RS13315	Rv2115c	<i>Rv2115c</i>	2.00	0.011
MRA_RS14145	Rv1577c	<i>Rv1577c</i>	1.56	0.013
MRA_RS14195	Rv0464c	<i>Rv0464c</i>	1.66	0.013
MRA_RS13675	Rv1987	<i>Rv1987</i>	1.60	0.012
MRA_RS14400	Rv1461	<i>Rv1461</i>	2.99	0.014
MRA_RS16230	Rv1196	<i>ppe18</i>	1.55	0.018

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS14420	Rv2662	<i>Rv2662</i>	1.54	0.015
MRA_RS16240	Rv2160c	<i>Rv2160c</i>	1.73	0.018
MRA_RS14435	Rv1880c	<i>cyp140</i>	1.99	0.015
MRA_RS04305	Rv0309	<i>Rv0309</i>	1.51	0.019
MRA_RS17060	Rv1463	<i>Rv1463</i>	2.49	0.020
MRA_RS17145	Rv1375	<i>Rv1375</i>	2.26	0.021
MRA_RS17305	Rv1464	<i>csd</i>	1.90	0.022
MRA_RS17345	Rv3086	<i>adhD</i>	1.57	0.022
MRA_RS17290	Rv1462	<i>Rv1462</i>	2.26	0.022
MRA_RS17295	Rv0146	<i>Rv0146</i>	1.57	0.022
MRA_RS18185	Rv1419	<i>Rv1419</i>	1.53	0.024
MRA_RS20205	Rv0287	<i>esxG</i>	1.84	0.048
MRA_RS19155	Rv0288	<i>esxH</i>	1.80	0.026
MRA_RS20505	MTB000026	<i>rnpB</i>	2.45	0.049
MRA_RS17485	Rv3206c	<i>moeB1</i>	1.61	0.023
MRA_RS19185	Rv0848	<i>cysK2</i>	1.51	0.029
	Rv3874	<i>esxB</i>	1.66	0.065
	Rv3161c	<i>Rv3161c</i>	1.56	0.068
	Rv3019c	<i>esxR</i>	1.53	0.086

**Table S2: Genes down regulated in *M. tuberculosis* after 1 day of nitrite exposure**

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
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MRA_RS19190	Rv3621c	<i>ppe65</i>	-1.59	0.001
MRA_RS01815	Rv0342	<i>iniA</i>	-1.69	0.035

MRA_RS09625	Rv1815	<i>Rv1815</i>	-1.90	0.037
MRA_RS15885	Rv2990c	<i>Rv2990c</i>	-1.50	0.006
MRA_RS01495	Rv0280	<i>ppe3</i>	-1.53	0.015
MRA_RS00930	Rv0171	<i>mce1C</i>	-1.56	0.025

**Table S3: Genes up regulated in *M. tuberculosis* after 3 day of nitrite exposure**

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS20415	Rv3849	<i>Rv3849</i>	4.80	0.000
MRA_RS05945	Rv1116	<i>Rv1116</i>	1.52	0.001
MRA_RS10920	Rv2063	<i>Rv2063</i>	2.70	0.001
MRA_RS19640	Rv3705A	<i>Rv3705A</i>	2.33	0.002
MRA_RS14445	Rv2712c	<i>Rv2712c</i>	1.48	0.002
MRA_RS09350	Rv1761c	<i>Rv1761c</i>	4.41	0.005
MRA_RS09355	Rv1762c	<i>Rv1762c</i>	5.07	0.012
MRA_RS00615	Rv0112	<i>gca</i>	1.51	0.007
MRA_RS09345	Rv1760	<i>Rv1760</i>	1.59	0.007
MRA_RS14625	Rv2748c	<i>ftsK</i>	1.57	0.008
MRA_RS20305	Rv3828c	<i>Rv3828c</i>	1.57	0.008
MRA_RS16390	Rv2564	<i>glnQ</i>	1.99	0.008
MRA_RS19220	Rv3627c	<i>Rv3627c</i>	1.50	0.009
MRA_1990			1.74	0.010
MRA_RS00370	Rv0066c	<i>icd2</i>	2.74	0.010
MRA_RS06285	Rv1179c	<i>Rv1179c</i>	1.50	0.011
MRA_RS12660	Rv2382c	<i>mbtC</i>	1.91	0.013

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS12450	Rv2342	<i>Rv2342</i>	1.80	0.019
MRA_0412			2.45	0.020
MRA_RS12620	Rv2374c	<i>hrcA</i>	1.55	0.016
MRA_RS12605	Rv2371	<i>pe-pgrs40</i>	2.11	0.016
MRA_RS09545	Rv0468	<i>fadB2</i>	2.29	0.017
MRA_RS08975	Rv3613c	<i>Rv3613c</i>	1.58	0.020
MRA_RS12145	Rv2290	<i>lppO</i>	1.63	0.020
MRA_RS16395	Rv3084	<i>lipR</i>	2.25	0.020
MRA_RS18310	Rv3448	<i>Rv3448</i>	2.25	0.021
MRA_RS13960	Rv2159c	<i>Rv2159c</i>	1.68	0.022
MRA_RS03360	Rv0636	<i>Rv0636</i>	1.58	0.022
MRA_RS07915	Rv1489A	<i>Rv1489A</i>	1.64	0.025
MRA_RS10155	Rv1921c	<i>lppF</i>	1.90	0.025
MRA_RS19515	Rv3683	<i>Rv3683</i>	1.93	0.025
MRA_RS16995	Rv3196A	<i>Rv3196A</i>	2.05	0.025
MRA_RS04265	Rv0807	<i>Rv0807</i>	1.61	0.037
MRA_RS15115	Rv2844	<i>Rv2844</i>	1.79	0.027
MRA_RS12830	Rv2411c	<i>Rv2411c</i>	1.55	0.027
MRA_RS12380	Rv2330c	<i>lppP</i>	1.63	0.028
MTB000010		<i>lysT</i>	4.21	0.028
MRA_RS07975	Rv1500	<i>Rv1500</i>	1.62	0.030
MRA_RS08015	Rv1507A	<i>Rv1507A</i>	1.69	0.038

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS13950	MTB000019	<i>rrs</i>	5.86	0.031
MRA_RS11030	Rv2082	<i>Rv2082</i>	2.70	0.033
MRA_RS19645	Rv3706c	<i>Rv3706c</i>	1.88	0.033
MRA_RS03315	Rv0631c	<i>recC</i>	1.85	0.033
MRA_RS03940	Rv0747	<i>pe-pgrs10</i>	2.45	0.034
	Rv0192A		2.28	0.036
MRA_RS04570	Rv0862c	<i>Rv0862c</i>	2.24	0.040
MRA_RS07425	Rv1396c	<i>pe-pgrs25</i>	1.78	0.042
MRA_RS03615	Rv0685	<i>tuf</i>	1.96	0.043
MRA_RS07980	Rv1501	<i>Rv1501</i>	1.58	0.044
	MTB000028	<i>metV</i>	3.82	0.046
MRA_RS03145	Rv0600c	<i>Rv0600c</i>	2.21	0.046
MRA_RS11855	Rv2234	<i>ptpA</i>	1.84	0.051
MRA_RS04280	Rv0810c	<i>Rv0810c</i>	3.59	0.052
MRA_RS15880	Rv2989	<i>Rv2989</i>	1.50	0.052
MRA_RS04715	Rv0891c	<i>Rv0891c</i>	2.09	0.054
MRA_RS05725	MTB000020	<i>rhl</i>	4.08	0.048
MRA_RS09565	Rv1803c	<i>pe-pgrs32</i>	1.54	0.044
MRA_RS04840	Rv0914c	<i>Rv0914c</i>	2.46	0.045
MRA_RS13550	Rv2541	<i>Rv2541</i>	1.77	0.045
MRA_RS03425	Rv0648	<i>Rv0648</i>	2.49	0.057
MRA_RS20390	Rv3845	<i>Rv3845</i>	1.79	0.051



<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS16900	Rv3180c	<i>Rv3180c</i>	1.73	0.055
MRA_RS01490	Rv0279c	<i>pe-pgrsS4</i>	1.80	0.056
MRA_RS18080	Rv3403c	<i>Rv3403c</i>	2.30	0.052
MRA_RS18600	Rv3507	<i>pe-pgrs53</i>	2.17	0.051
MRA_RS15035	Rv2828A	<i>Rv2828A</i>	1.53	0.042
	Rv1053c		1.63	0.044
MRA_RS06305	Rv1184c	<i>Rv1184c</i>	2.02	0.045
MRA_RS12015	Rv2264c	<i>Rv2264c</i>	2.42	0.047
MRA_RS11045	Rv2085	<i>Rv2085</i>	1.52	0.038
MRA_RS20340	Rv3835	<i>Rv3835</i>	1.53	0.034
	MTB000025	<i>leuU</i>	2.74	0.029
MRA_RS20405	Rv2706c	<i>Rv2706c</i>	1.67	0.021
MRA_RS13830	Rv2595	<i>Rv2595</i>	1.84	0.031
MRA_RS12250	Rv2308	<i>Rv2308</i>	1.62	0.004
MRA_RS14955	Rv2813	<i>Rv2813</i>	2.36	0.012
MRA_RS10885	Rv2056c	<i>rpsN2</i>	1.52	0.012
MRA_RS19580	Rv3695	<i>Rv3695</i>	1.98	0.012
MRA_RS12075	Rv2276	<i>cyp121</i>	1.92	0.010
MRA_RS06535	Rv1230c	<i>Rv1230c</i>	2.00	0.014
MRA_RS05780	Rv1087	<i>pe-pgrs21</i>	1.52	0.014
MRA_RS12340	Rv1595	<i>nadB</i>	1.99	0.014
MRA_1587			1.59	0.015

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS05670	Rv1065	<i>Rv1065</i>	1.69	0.017
	Rv3344c	<i>pe-pgrs49</i>	1.62	0.017
	MTB000043	<i>metU</i>	1.76	0.017
	MTB000003	<i>leuT</i>	1.99	0.017
MRA_RS03985	Rv0755c	<i>ppe12</i>	1.72	0.018
MRA_RS13045	Rv2450c	<i>rpfE</i>	2.05	0.018
MRA_RS14075	Rv2641	<i>cadI</i>	4.94	0.020
MRA_RS12345	Rv2466c	<i>Rv2466c</i>	1.97	0.021
MRA_RS04505	Rv0849	<i>Rv0849</i>	3.08	0.023
MRA_RS20505	MTB000026	<i>rnpB</i>	3.33	0.024
MRA_RS04495	Rv0847	<i>lpqS</i>	3.14	0.027
MRA_RS15735	Rv2963	<i>Rv2963</i>	2.57	0.027
MRA_RS13135	Rv2621c	<i>Rv2621c</i>	2.52	0.028
MRA_RS14080	Rv2642	<i>Rv2642</i>	3.04	0.030
MRA_RS19185	Rv0848	<i>cysK2</i>	3.74	0.032

**Table S4: Genes down regulated in *M. tuberculosis* after 3 day of nitrite exposure**

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS00060	Rv0009	<i>ppiA</i>	-1.75	0.010
MRA_RS19190	Rv3621c	<i>ppe65</i>	-2.04	0.062
MRA_RS03735	Rv0707	<i>rpsC</i>	-1.81	0.015

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS07360	Rv1384	<i>carB</i>	-1.76	0.014
MRA_RS03720	Rv0704	<i>rplB</i>	-1.70	0.002
MRA_RS02435	Rv3619c	<i>esxI</i>	-1.72	0.038
MRA_RS02495	Rv1198	<i>esxL</i>	-1.83	0.007
MRA_RS02715	Rv0516c	<i>Rv0516c</i>	-1.53	0.044
MRA_RS03575	Rv0677c	<i>mmpS5</i>	-1.91	0.007
MRA_RS03655	Rv0692	<i>Rv0692</i>	-1.99	0.081
MRA_RS03700	Rv0700	<i>rpsJ</i>	-2.27	0.062
MRA_RS09970	Rv1884c	<i>rpfC</i>	-1.61	0.055
MRA_RS01305	Rv0243	<i>fadA2</i>	-1.81	0.085
MRA_RS04355	Rv0824c	<i>desA1</i>	-1.79	0.012
MRA_RS03710	Rv0702	<i>rplD</i>	-1.83	0.011
MRA_RS03705	Rv0701	<i>rplC</i>	-1.78	0.019
MRA_RS03810	Rv0722	<i>rpmD</i>	-1.60	0.002
MRA_RS00930	Rv0171	<i>mce1C</i>	-1.77	0.036
MRA_RS05355	Rv1010	<i>ksgA</i>	-1.57	0.015
MRA_RS18830	Rv3549c	<i>Rv3549c</i>	-1.60	0.014
MRA_RS19330	Rv3648c	<i>cspA</i>	-1.97	0.002
MRA_RS05835	Rv1094	<i>desA2</i>	-1.82	0.035
MRA_RS07235	Rv1360	<i>Rv1360</i>	-1.91	0.029
MRA_RS07315	MRA_2676	-	-1.76	0.026
MRA_RS16105	Rv3029c	<i>fixA</i>	-2.10	0.002

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS18280	Rv3442c	<i>rpsI</i>	-1.55	0.053
MRA_RS18285	Rv3443c	<i>rplM</i>	-1.57	0.036
MRA_RS20370	Rv3841	<i>bfrB</i>	-2.51	0.056
MRA_RS20780	Rv3922c	<i>Rv3922c</i>	-1.60	0.025
MRA_RS20785	Rv3923c	<i>rnpA</i>	-1.98	0.035
MRA_RS09900	Rv1870c	<i>Rv1870c</i>	-1.57	0.006
MRA_RS09950	Rv1195	<i>pe13</i>	-1.61	0.015
MRA_RS09195	Rv1738	<i>Rv1738</i>	-3.43	0.046
MRA_RS03795	Rv0719	<i>rplF</i>	-1.99	0.008
MRA_RS07885	Rv1484	<i>inhA</i>	-1.88	0.003
MRA_RS10195	Rv1929c	<i>Rv1929c</i>	-1.62	0.015
MRA_RS09625	Rv1815	<i>Rv1815</i>	-1.99	0.045
MRA_RS10755	Rv2031c	<i>hspX</i>	-1.78	0.006
MRA_RS10760	Rv2032	<i>Acg</i>	-2.04	0.036
MRA_RS13910	Rv2610c	<i>pimA</i>	-1.53	0.027
MRA_RS13995	Rv2626c	<i>Rv2626c</i>	-1.68	0.024
MRA_RS14005	Rv2628	<i>Rv2628</i>	-2.53	0.033
MRA_RS12865	Rv2418c	<i>Rv2418c</i>	-1.51	0.039
MRA_RS17445	Rv3280	<i>accD5</i>	-1.53	0.035
MRA_RS17810	Rv3351c	<i>Rv3351c</i>	-1.63	0.042
MRA_RS00920	Rv0169	<i>mce1A</i>	-1.99	0.025
MRA_RS16230	Rv1196	<i>ppe18</i>	-1.97	0.037

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
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MRA_RS16620	Rv3127	<i>Rv3127</i>	-1.90	0.008
MRA_RS16640	Rv3130c	<i>Rv3130c</i>	-1.89	0.051
MRA_RS16645	Rv3131	<i>Rv3131</i>	-2.19	0.011

**Table S5: Genes up regulated in *M. tuberculosis* after 6 day of nitrite exposure**

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
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MRA_RS01005	Rv0186	<i>bglS</i>	1.77	0.002
MRA_RS01020	Rv2617c	<i>Rv2617c</i>	3.15	0.001
MRA_RS04145	Rv2496c	<i>pdhB</i>	1.60	0.003
MRA_RS01470	Rv3290c	<i>lat</i>	2.04	0.007
MRA_RS05705	Rv0188	<i>Rv0188</i>	1.93	0.004
MRA_RS01720	Rv0323c	<i>Rv0323c</i>	1.68	0.012
MRA_RS10315	Rv1952	<i>Rv1952</i>	1.82	0.029
MRA_RS05125	Rv0968	<i>Rv0968</i>	1.53	0.004
MRA_RS09485	Rv0251c	<i>hsp</i>	2.97	0.003
MRA_RS06500	Rv1223	<i>htrA</i>	2.12	0.001
MRA_RS09515	Rv2780	<i>ald</i>	1.77	0.010
MRA_RS06370	Rv3054c	<i>Rv3054c</i>	3.10	0.003
MRA_RS06375	Rv3289c	<i>Rv3289c</i>	1.82	0.011
MRA_RS10095	Rv1909c	<i>furA</i>	1.52	0.048
MRA_RS10550	Rv1992c	<i>ctpG</i>	2.83	0.008
MRA_RS10555	Rv1993c	<i>Rv1993c</i>	1.54	0.010

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS14085	Rv2643	<i>arsC</i>	2.18	0.004
MRA_RS14400	Rv1461	<i>Rv1461</i>	1.84	0.001
MRA_RS17305	Rv1464	<i>csd</i>	1.66	0.003
MRA_RS17495	Rv1222	<i>Rv1222</i>	2.03	0.006
MRA_RS12935	Rv2710	<i>sigB</i>	2.94	0.023
MRA_RS05725	MTB000020	<i>rrl</i>	1.59	0.058
MRA_RS17060	Rv1463	<i>Rv1463</i>	1.74	0.000
MRA_RS17155	Rv3223c	<i>sigh</i>	1.60	0.029
MRA_RS17250	Rv1955	<i>Rv1955</i>	1.63	0.001
MRA_RS20505	MTB000026	<i>rnpB</i>	1.72	0.005
MRA_RS19580	Rv3695	<i>Rv3695</i>	1.75	0.040
MRA_RS14075	Rv2641	<i>cadI</i>	3.33	0.003
MRA_RS19185	Rv0848	<i>cysK2</i>	2.09	0.001

**Table S6: Genes down regulated in *M. tuberculosis* after 6 day of nitrite exposure**

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS11920	Rv2245	<i>kasA</i>	-2.73	0.000
MRA_RS11370	Rv2144c	<i>Rv2144c</i>	-1.69	0.000
MRA_RS01815	Rv0342	<i>iniA</i>	-2.04	0.000
MRA_RS03520	Rv0667	<i>rpoB</i>	-2.08	0.000
MRA_RS02435	Rv3619c	<i>esxI</i>	-1.99	0.000
MRA_RS07885	Rv1484	<i>inhA</i>	-1.87	0.000

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS16105	Rv3029c	<i>fixA</i>	-2.15	0.000
MRA_RS20150	Rv3799c	<i>accD4</i>	-1.57	0.000
MRA_RS11915	Rv2244	<i>acpM</i>	-2.67	0.000
MRA_RS11925	Rv2246	<i>kasB</i>	-2.23	0.000
MRA_RS00060	Rv0009	<i>ppiA</i>	-1.83	0.000
MRA_RS04685	Rv0885	<i>Rv0885</i>	-1.81	0.000
MRA_RS08695	Rv1641	<i>infC</i>	-2.01	0.001
MRA_RS19190	Rv3621c	<i>ppe65</i>	-1.69	0.001
MRA_RS03700	Rv0700	<i>rpsJ</i>	-2.48	0.002
MRA_RS02495	Rv1198	<i>esxL</i>	-2.04	0.001
MRA_RS09690	Rv1828	<i>Rv1828</i>	-1.51	0.001
MRA_RS01810	Rv0341	<i>iniB</i>	-3.75	0.001
MRA_RS01535	Rv1793	<i>esxN</i>	-1.96	0.001
MRA_RS18105	Rv3408	<i>Rv3408</i>	-1.97	0.001
MRA_RS04790	Rv3620c	<i>esxM</i>	-2.17	0.001
MRA_RS02450	Rv1827	<i>cfp17</i>	-1.59	0.001
MRA_RS07150	Rv2347c	<i>esxJ</i>	-2.28	0.001
MRA_RS20785	Rv3923c	<i>rnpA</i>	-2.13	0.001
MRA_RS11175	Rv2109c	<i>prcA</i>	-1.86	0.001
MRA_RS11785	Rv2222c	<i>glnA2</i>	-1.54	0.001
MRA_RS07405	Rv0491	<i>regX3</i>	-1.59	0.001
MRA_RS09970	Rv1884c	<i>rpfC</i>	-1.62	0.001

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS16620	Rv3127	<i>Rv3127</i>	-1.95	0.001
MRA_RS03605	Rv0683	<i>rpsG</i>	-1.77	0.002
MRA_RS09520	Rv1794	<i>Rv1794</i>	-2.13	0.002
MRA_RS13005	Rv2442c	<i>rplU</i>	-1.98	0.002
MRA_RS13080	Rv2457c	<i>clpX</i>	-2.38	0.002
MRA_RS15865	Rv2986c	<i>hupB</i>	-1.79	0.002
MRA_RS06930	Rv3248c	<i>sahH</i>	-1.61	0.002
MRA_RS00930	Rv0171	<i>mce1C</i>	-1.94	0.002
MRA_RS09950	Rv1195	<i>pe13</i>	-1.86	0.002
MRA_RS02535	Rv0483	<i>lprQ</i>	-2.25	0.002
MRA_RS07235	Rv1360	<i>Rv1360</i>	-2.39	0.002
MRA_RS17445	Rv3280	<i>accD5</i>	-2.08	0.002
	MTB000008	<i>trpT</i>	-1.90	0.002
MRA_RS18155	Rv3418c	<i>groES</i>	-1.56	0.002
MRA_RS11910	Rv2243	<i>fabD</i>	-2.07	0.002
MRA_RS03670	Rv0695	<i>Rv0695</i>	-1.79	0.003
MRA_RS04310	Rv1197	<i>esxK</i>	-2.05	0.003
MRA_RS16215	Rv3049c	<i>Rv3049c</i>	-1.53	0.003
MRA_RS16645	Rv3131	<i>Rv3131</i>	-1.76	0.003
MRA_RS03795	Rv0719	<i>rplF</i>	-2.13	0.003
MRA_RS09910	Rv1872c	<i>lldD2</i>	-2.28	0.004
MRA_RS00920	Rv0169	<i>mce1A</i>	-1.96	0.002



<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS09625	Rv1815	<i>Rv1815</i>	-2.86	0.003
MRA_RS03735	Rv0707	<i>rpsC</i>	-1.68	0.003
MRA_RS08460	Rv0928	<i>pstS3</i>	-1.52	0.003
MRA_RS12160	Rv2293c	<i>Rv2293c</i>	-1.53	0.004
MRA_RS15125	Rv2846c	<i>efpA</i>	-1.58	0.004
MRA_RS20780	Rv3922c	<i>Rv3922c</i>	-2.04	0.004
MRA_RS19160	Rv1594	<i>nadA</i>	-1.86	0.004
MRA_RS14005	Rv2628	<i>Rv2628</i>	-2.08	0.004
MRA_RS03720	Rv0704	<i>rplB</i>	-1.80	0.005
MRA_RS19865	Rv3749c	<i>Rv3749c</i>	-2.10	0.005
MRA_RS03385	Rv0640	<i>rplK</i>	-1.64	0.005
MRA_RS11930	Rv2247	<i>accD6</i>	-1.82	0.005
MRA_RS09965	Rv1883c	<i>Rv1883c</i>	-1.70	0.005
MRA_RS02305	Rv0440	<i>groEL2</i>	-1.70	0.005
MRA_RS15095	Rv2840c	<i>Rv2840c</i>	-2.73	0.005
MRA_RS17055	Rv0932c	<i>pstS2</i>	-1.84	0.005
MRA_RS04355	Rv0824c	<i>desA1</i>	-2.19	0.005
MRA_RS10470	Rv1981c	<i>nrdF1</i>	-1.67	0.004

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS03710	Rv0702	<i>rplD</i>	-2.15	0.006
MRA_RS18370	Rv3460c	<i>rpsM</i>	-1.97	0.006
MRA_RS19330	Rv3648c	<i>cspA</i>	-2.34	0.006
MRA_RS17390	Rv3269	<i>Rv3269</i>	-1.77	0.006
MRA_RS05835	Rv1094	<i>desA2</i>	-2.01	0.006
MRA_RS09195	Rv1738	<i>Rv1738</i>	-2.73	0.006
MRA_RS15430	Rv2904c	<i>rplS</i>	-1.61	0.004
MRA_RS03705	Rv0701	<i>rplC</i>	-1.88	0.006
MRA_RS03715	Rv0703	<i>rplW</i>	-1.53	0.006
MRA_RS03615	Rv0685	<i>Tuf</i>	-1.71	0.006
MRA_RS03610	Rv0684	<i>fusA1</i>	-1.51	0.006
	Rv3874	<i>esxB</i>	-1.66	0.008
MRA_RS07035	Rv1322A	<i>Rv1322A</i>	-1.78	0.009
MRA_RS18365	Rv3459c	<i>rpsK</i>	-1.86	0.008
MRA_RS20790	Rv3924c	<i>rpmH</i>	-1.51	0.007
MRA_RS16230	Rv1196	<i>ppe18</i>	-1.77	0.007
MRA_RS09905	Rv1871c	<i>Rv1871c</i>	-2.05	0.007
MRA_RS19195	Rv3622c	<i>pe32</i>	-1.59	0.004
MRA_RS13320	Rv3281	<i>Rv3281</i>	-1.69	0.007
MRA_RS12480	Rv2348c	<i>Rv2348c</i>	-1.76	0.007
MRA_RS08700	Rv1642	<i>rpmI</i>	-1.73	0.010
MRA_RS11485	Rv2166c	<i>Rv2166c</i>	-1.57	0.010

<b>Ra_ID</b>	<b>Probe Name</b>	<b>Gene Name</b>	<b>GeoMean_1D</b>	<b>P-Value</b>
MRA_RS03730	Rv0706	<i>rplV</i>	-1.59	0.012
MRA_RS10755	Rv2031c	<i>hspX</i>	-1.80	0.013
MRA_RS06275	Rv1177	<i>fdxC</i>	-1.65	0.013
MRA_RS11375	Rv2145c	<i>wag31</i>	-1.64	0.013
MRA_RS09900	Rv1870c	<i>Rv1870c</i>	-1.64	0.011
MRA_RS00005	Rv0001	<i>dnaA</i>	-1.59	0.016
MRA_RS06260	Rv1174c	<i>TB8.4</i>	-1.51	0.014
MRA_RS16640	Rv3130c	<i>Rv3130c</i>	-1.62	0.014
MRA_RS19870	Rv3750c	<i>Rv3750c</i>	-1.63	0.019
	MTB000021	<i>rrf</i>	-1.55	0.017
MRA_RS20400	Rv3846	<i>soda</i>	-1.52	0.017
MRA_RS03575	Rv0677c	<i>mmpS5</i>	-1.91	0.018
MRA_RS16060	Rv3020c	<i>esxS</i>	-1.52	0.020
MRA_RS20545	Rv3875	<i>esxA</i>	-1.74	0.021
MRA_RS08705	Rv1643	<i>rplT</i>	-1.70	0.021
MRA_RS05745	Rv1080c	<i>greA</i>	-2.43	0.031
MRA_RS18380	Rv3462c	<i>infA</i>	-1.80	0.031
MRA_RS20370	Rv3841	<i>bfrB</i>	-2.44	0.026
MRA_RS03655	Rv0692	<i>Rv0692</i>	-2.01	0.027
MRA_RS20205	Rv0287	<i>esxG</i>	-1.92	0.028

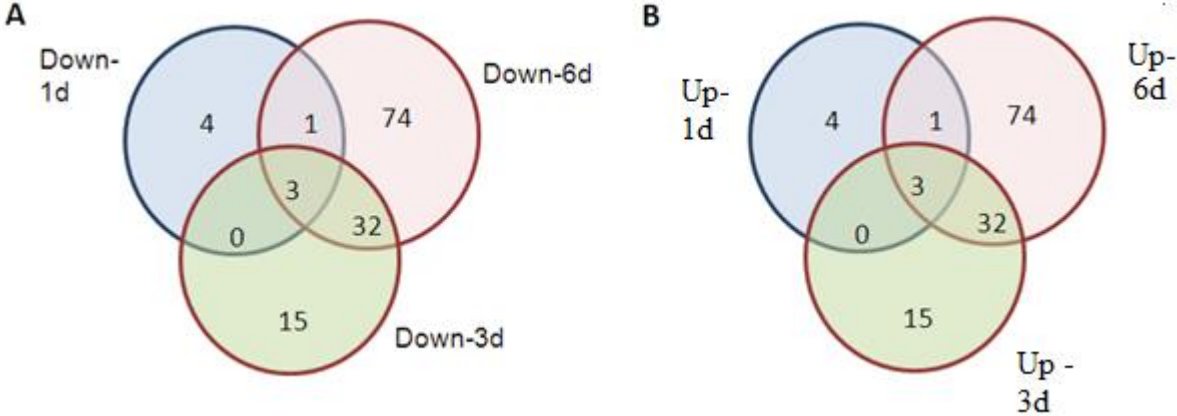
**Table S7: Details of the primers used in Real Time PCR study**

<b>Gene</b>	<b>Primer Sequence <sup>a</sup></b>	<b>Amplicon Size (bp)</b>	<b>Annealing Temp<sup>b</sup>(°C)</b>
<i>sigA</i>	F: AAACCATCTGCTGGAAGCCA R: CGGCCGGTGTAGCGC	160	55
<i>hspX</i>	F: ATCCCGGCCACCTTCGACA R: AGCACCTACCGGCAGCGACA	196	55
<i>rv0031</i>	F: AAGCCGATATCCAAGCCTGG R: TTCCGAGTTGATGGGTGGC	108	55
<i>rv0633</i>	F: TGTTTATGGAGCCCCACGTC R: AGCCGAAGTTCCACGACATC	166	55
<i>ctpG</i>	F: GAGCACGCGAACACTATCAG R: TCAGCAAACTCCGGAGAAT	164	55
<i>iniA</i>	F: CAGGAATTCACCGAACCCGA R: CAGGAATTCACCGAACCCGA	187	60
<i>rv2621</i>	F: GGAGACGATCGACCACTTGG R: CCCGCATGATCCCTAAGTGG	167	60
<i>cysK2</i>	F: ACCCTGACCGTGGATTTTGG R: GTACACCTTACCAGCGAGGG	182	60
<i>rubA</i>	F:GGTCTGCGACTACGTCTACGAC R: TCGAAATCGACCTTCTCGCG	132	60
<i>kas A</i>	F: GGTCACCTCAAGGATCCGGT R: GCTCTCGACAATCCTCTCGG	192	60

<sup>a</sup>Primers were designed using the IDT (Integrated DNA Technology) primer designer software.

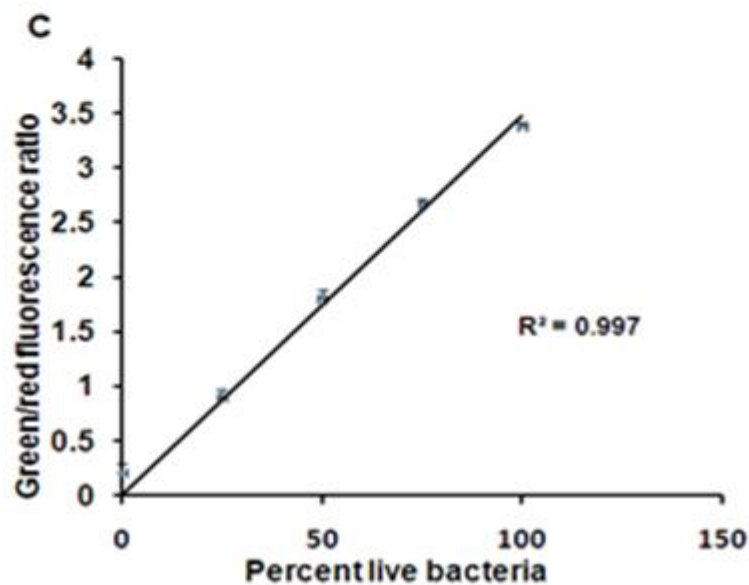
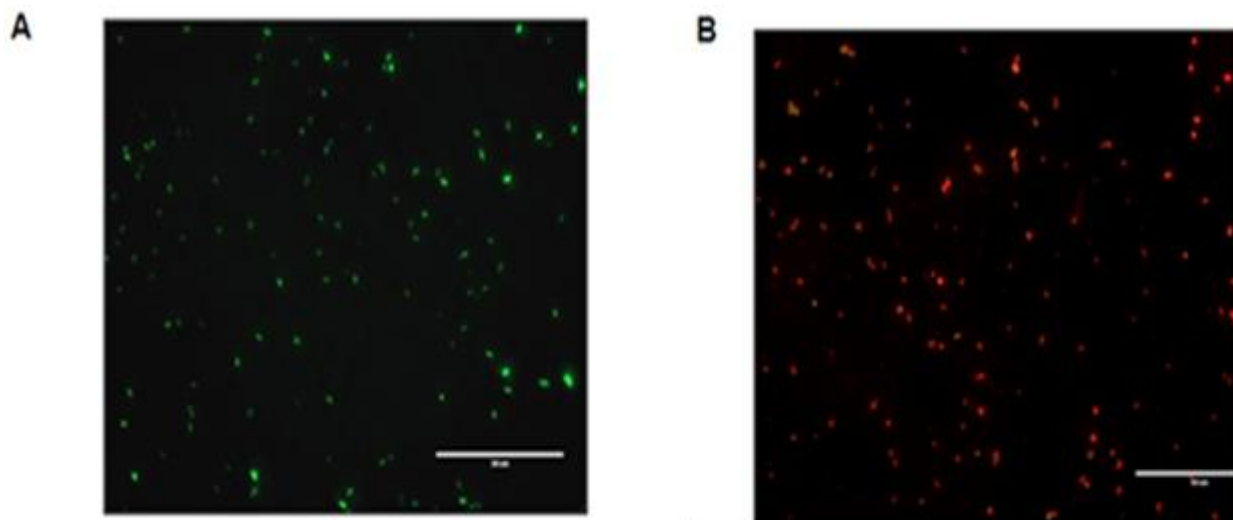
<sup>b</sup>Initial denaturation of 95°C for 4 minutes followed by 40 cycles of 94°C (30 seconds), primer specific annealing temp. (30 seconds), 72°C (30 seconds) and final extension of 10 minutes at 72°C were used for amplification of mentioned genes followed by melting curve analysis.

**Figure S1: Venn diagram representing number of genes overlapping at different time points in nitrite treated *M. tuberculosis* cells. Overlapping genes A) down regulated and B) up regulated in nitrite treated *M. tuberculosis* cells at day1, 3 and 6 respectively.**



**Figure S2: Standardization of live- dead analysis assay.**

The cells were stained with SYTO9/ PI and observed under fluorescence microscope at 60X objective (EVOS, Invitrogen). It was observed that, log phase cells fluoresces green due to SYTO 9 staining (100% live) (Figure S1- A). While isopropanol treated cells, fluoresces yellow due to both SYTO 9 and PI staining (100% killed) (Figure S1- B). The scale bar corresponds to 50µm. Further, for the percent viability detection, a standard curve was drawn by spiking log phase cells with isopropanol treated cells in different ratio (1:0, 1:3, 1:1, 3:1 and 0:1) (Figure S1- C). The percent viability of nitrite treated and untreated cells were determined at different time intervals by using standard curve.



**Figure S3: Live-dead analysis for isoniazid treatment.** Log-phase cells were grown in *M.phlei* medium up to the optical density 0.2 (620 nm) and treated with Isoniazid (10 $\mu$ g/ml). The samples (200 $\mu$ l) were incubated with SYTO 9 (5.1 $\mu$ M) and PI (80 $\mu$ M) for 15mins. The fluorescence images were taken on different day like 0day, 1day, 3day, 6day and 10day by using the EVOS microscope (Life technology, Germany) (Figure S3).

