

Supporting Information

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SI Materials and Methods

Bacterial Strains and Growth Conditions. The bacterial strains and plasmids used in this study are listed in SI Appendix, Table S2. *Burkholderia glumae* BGR1 and two QS-defective mutants, BGS2 (BGR1 *tofl*:: Ω) and BGS9 (BGR1 *qsmR*:: Ω), were grown in LB broth (0.1% tryptone, 0.5% yeast extract, and 0.5% NaCl [all w/v]; USB Corp., Cleveland, OH) or in LB broth buffered with 100 mM HEPES (pH 7.0) (BLB) at 37°C.

Generation of the S9C17 and KJ1120 Strains. For genetic complementation of the *qsmR* mutant BGS9, we mutagenized the mutant by mini-Tn5rescue (1) to integrate *qsmR* into the genome as a single copy. A single copy of the *qsmR* gene was inserted in the intergenic region between *bglu_2g019970* and *bglu_2g01980* in chromosome 2 of the *qsmR* mutant BGS9, resulting in S9C17. The *ptsI* mutant KJ1120 (BGR1 *ptsI*::mini-Tn5rescue) was constructed as previously described (1). Mini-Tn5rescue was inserted at the 3' end of *ptsI* gene (between 1,577 and 1,578 bp in a total length of 1,770 bp), which disrupted a PEP-utilizers_C domain (2).

Statistical Analyses. The JMP 10 statistical software for Windows (SAS Institute Inc., Cary, NC) was used for all statistical analyses. A one-way analysis of variance was used to detect significant differences among the levels of intracellular metabolites of *B. glumae* BGR1 (wild- type), BGS2 (BGR1 *tofl*:: Ω) and BGS9 (BGR1 *qsmR*:: Ω). A one-way analysis of variance was used to detect significant differences among the growth rates of *B. glumae* BGR1 and two QS-defective mutants, BGS2 (BGR1 *tofl*:: Ω) and BGS1 (BGR1 *tofR*:: Ω) in the absence and presence of C8-HSL, and BGS9 (BGR1 *qsmR*:: Ω), and S9C17 (BGR1 *qsmR*:: Ω /*qsmR*) during the exponential growth stage. Student's t-test was used to identify significant differences between sample pairs. A p-value < 0.05 was considered to indicate statistical significance.

RNA isolation and quantitative reverse transcription-polymerase chain reaction (qRT-PCR). Total RNAs from *B. glumae* BGR1 and two QS-defective mutants, BGS2 (BGR1 *tofl*:: Ω) and BGS9 (BGR1 *qsmR*:: Ω), grown in LB medium at 37°C for 10 h after subculture, were extracted using RNeasy mini kits (Qiagen) following the manufacturer's protocol. Total RNA was treated with RNase-free DNaseI (Ambion) to remove gDNA. We reverse-transcribed 1- μ g amounts of total RNA into cDNA using M-MLV Reverse Transcriptase (Promega) acting for 1 h at 42°C. The primer pairs used in qRT-PCR are listed in SI Appendix, Table S3. 16S rRNA served as a positive control. Transcriptional levels were determined using SsoFast EvaGreen Supermix (Bio-Rad) and a CFX96 Real-Time PCR System (Bio-Rad). The thermal cycling parameters were: 95°C for 30 sec, followed by 40 cycles of 95°C for 5 sec, and 60°C for 5 sec. All PCRs were performed three times, and all data were normalized to the expression levels of the 16S rRNA gene, using Bio-Rad CFX Manager software.

Electrophoretic mobility shift assay. QsmR-His was purified as described previously (1). The upstream regions of putative QsmR target genes were amplified using the primers shown in Table S3. PCR products were labeled with biotin using Lightshift Chemiluminescent Electrophoretic Mobility Shift Assay Kits, as described by the manufacturer (Pierce). We used the 329 bp upstream of *katE1* as a competitor DNA; this was amplified using the KatE1-F and KatE1-R primers, as described previously (see SI Appendix, Table

S3). Purified QsmR-His (500 nM) was incubated in binding buffer [10 mM Tris-HCl (pH 7.5), 100 mM NaCl, 0.5 mM EDTA, 1 mM DTT, 5% (v/v) glycerol, and 10 ng μl^{-1} poly (dI-dC)] containing 0.25 nM or 2.5 nM biotin-labeled DNA, for 15 min at 28°C. In competition analyses, unlabeled target DNA at 10–20-fold molar excess was added to each reaction along with the extract, before addition of labeled DNA targets. Reaction mixtures were separated in non-denaturing 4% (w/v) polyacrylamide gels and transferred to nitrocellulose membranes, followed by detection of relevant bands using streptavidin/horseradish peroxidase-derived chemiluminescence kits, as described by the manufacturer (Pierce). Images were visualized using Chemi Doc XRS+ and the Image Lab Software (Bio-Rad).

Table S1. The intracellular metabolite concentrations of *Burkholderia glumae* BGR1 (wild-type) and two QS-defective mutants, BGS2 (BGR1 *tofl::Ω*) and BGS9 (BGR1 *qsmR::Ω*), grown in LB broth or in LB broth buffered with 100 mM HEPES (pH 7.0) at 37°C.

Metabolite	Concentration (pmol/10 ⁹ cells)								
	Mid-exponential growth stage in LB (6 hrs after subculture)			Late-exponential growth stage in LB (10 hrs after subculture)			Late-exponential growth stage in BLB (10 hrs after subculture)		
	BGR1	BGS2	BGS9	BGR1	BGS2	BGS9	BGR1	BGS2	BGS9
2-Phosphoglyceric acid	43.667*	170.333	71.667	45.2	174	108.2	91.62	157.72	168.11
3-Hydroxybutyric acid	1000.67	2518	1707.33	2549.6	2180.4	1282.6	1511.33	1256.33	914.33
3-Phosphoglyceric acid	236.33	1573	668.67	112.6	978.2	551.6	162.65	437.14	378.49
6-Phosphogluconic acid	19.3333	58	67.3333	30.78	97.6	113.2	83.32	133.73	98.10
Acetyl CoA_divalent	175.333	42.667	69.333	853	673	830.8	1031	2301	1436.67
Adenine	142.667	97.667	169	192.6	187.4	197.6	172.333	237.333	238.667
Adenosine	797.667	566.333	770	878	769.4	788.4	1062.33	1397	1224.33
ADP	812.67	1935.67	1181	712.8	2174.2	1712.2	1345.33	3134.33	2857
Ala	2869.33	970.33	1747	1479.8	4193	3066.6	1600.33	2923.33	2145.67
AMP	411	639	524	430.6	832.4	738	620	1161	810.33
Anthranilic acid	224.667	370.667	306	25.2	102.4	98.8	14.58	86.44	50.29
Arg	2820.67	1409.67	2317	6997.8	2386.4	2222.4	11033.3	5928.7	5577.3
Asn	110	82	106	101	89	88	46.61	64.73	51.83
Asp	1392	1601.67	1871.67	1098.4	1134.2	1091.4	523.333	811	664
ATP	1411.67	5201.67	2805.33	1434.4	6425.4	5124.6	2536	7508.33	7807
Betaine	4336.67	8489.67	8169.67	3857	19755.8	9636.6	6140	10059	8975.7
cAMP	103.333	126	160.667	141.4	124.4	143.2	130.333	160	163.667
CDP	49.667	101	58.667	62.2	187.8	159.2	118.333	459.333	421.333
cGMP	80.667	106.667	124.333	149.2	130.6	142.4	105.08	130.75	138.10
Choline	15.2333	16	19.3333	36.2	63.6	54	36	77	51.6667
Citric acid	355.667	648.333	668.333	689.6	913.8	882	827.67	1194.67	660.33
Citrulline	189.333	246.667	278.667	206	566.8	873.2	152.333	205	158.333
CMP	158.667	306.333	262.667	306.4	330.8	369.4	199.333	592.333	410.333
CTP	117.333	361	227.667	164	709	601.6	290	1544.33	1501
Cytidine	172.333	104.333	203.333	460.6	175.6	281	335.667	622.667	755
Cytosine	526	138	333	105.8	119.4	102.6	158.667	206	187.667
dATP	69	166	105	38.8	157	115	67	195.667	176.667
dCTP	31.6667	81.6667	61.3333	35.4	150.6	110.8	46.73	229.76	206.80
Dihydroxyacetone phosphate	171.667	419.667	385.333	283	422	444.8	292.21	306.03	290.62
dTDP	53.3333	68	54.3333	37	82.8	68	40	112.333	82.667
dTMP	21.6667	30.3333	35.6667	11.72	21.4	21.8	15.23	30.13	22.27
dTTP	82	139.333	87.667	64.4	184.2	154.4	57	221.333	210
Fructose 6-phosphate	114.667	514	355.333	155.6	403.6	495.6	151.667	312.333	263.333
GABA	90.333	106	104.333	501.8	127	147.8	515	622.333	282.333

GDP	113.333	321.667	180.333	96.8	500	292.6	385.333	894.333	875.667
Gln	1912	6065	6464.67	5534.2	15513.8	17082.2	2954	4352.67	8001.67
Glu	13340.7	17579.7	21812.3	17941.8	45655.8	43779.4	10926.7	23349.7	31296.3
Gluconic acid	306.333	293.333	459	292	362.2	412.2	355	442.667	461
Glucose 1-phosphate	40	64.3333	62.6667	46.2	131.8	106.8	44.3333	72.6667	65.6667
Glucose 6-phosphate	138	576.333	454	159.4	632.8	646.6	119.333	362.333	224
Glutathione (GSSG)_divalent	1399.33	2741.67	3917.67	4629.8	16696.2	11361.2	2667.7	12677.7	12091.7
Gly	3274.67	2302.33	3355	4958.6	4684.4	4021.6	3489	3611.33	4292
Glycerol 3-phosphate	837	2752.33	1775.67	418.2	1286.4	1740.2	698.33	2169	1309
Glyoxylic acid	295	337.333	310.667	242.75	149	170.5	421.667	247.667	359.333
GMP	16.6667	48.6667	30	19.2	50.6	48.2	34	68.6667	54.6667
GTP	143.333	837.333	440.333	105.4	1062	549.2	433.67	1226.33	1232.67
Guanosine	43	60.3333	64	42.6	85.8	68.2	56	108.333	77.333
His	853.333	769.333	919.667	800	686.4	659.4	539	456	447.333
Homoserine	43	120	82.333	48.4	239.2	124.6	34.6667	57	59
Hypoxanthine	418	221.333	271.333	69.75	339.75	197	311.667	252.667	199
Ile	4070.33	2607.67	3753	2765.2	2002	1896.8	2675.67	3453.67	2427.33
Lactic acid	6844.33	4717.67	4105.67	3986.2	5116.2	4370	3359.33	2876.67	2938
Leu	8550.67	5674	8076	6628.2	3993.8	3854.4	5881	7072.67	4871.33
Lys	13388.3	9316.7	13079.7	13452.4	12605.6	13391.4	11220.3	20854.3	18600.3
Malic acid	166.333	533.667	339.333	281	384.8	394.6	260.667	370	268.667
NAD ⁺	8617	11914.7	10364.7	14836.4	22038.2	20125.6	13816	25081	23451
NADP ⁺	208	570.667	284	400	998.2	1049.4	789.33	1655	1569.67
Ornithine	240.333	173.667	412.667	310.8	2668.6	5760	336.67	1506.33	1950.67
Phe	3362	2431	3481.33	1835	602.4	747.6	1589.33	1484.33	1119.67
Phosphoenolpyruvic acid	122	819	260	89.2	525	275.4	100.01	185.37	179.26
Pro	348	371.333	372	1385	816.4	930.2	1027.33	891.67	1134.67
Putrescine	2287.67	4710	3008	3576.6	3160	2580.4	5963.67	7256.67	6287
Ribose 5-phosphate	141.333	109.667	146	128.2	246.4	319	156.91	335.10	295.89
Ribulose 5-phosphate	206.667	218.667	309	254.4	389.2	499	305.333	474.333	429.333
Sedoheptulose 7-phosphate	371	214.333	257.333	123.6	332	336.6	154	432	264.333
Ser	854.67	1065.33	1056.33	1503.2	2452	1574.4	1188	899	1194.67
Succinic acid	749	837	928.667	574.4	1868	1947.6	526.67	1275.33	1258
Thr	4133.67	3797.33	5068.33	4259.8	5454.4	4927	3746	5728.33	4779
Trp	974	747.333	957.333	619.8	253	340.4	585	647.333	511
Tyr	3180.67	1819.33	2469	2083.4	620.2	647.6	1754	2630	1761.33
UDP	246.333	205.667	178.667	260.4	395.4	413.4	617.67	1076.67	978.33
UMP	123.333	119.667	127.333	151.4	208	200.4	137	348.333	200.667
UTP	368.333	474	374	466	1000.2	960.4	1024.33	2321.33	2478.67
Val	7591	6603	7879	6662.2	5236.4	4633.4	5769	9051.67	6349.33
β-Ala	90	71.6667	95.3333	133.2	558.2	547.2	93.667	264	304.333

Total **109616** **124620** **134059** **126419** **209024** **186800** **118060** **193339** **186029**

^c Concentrations differing in color signify that the replicate numbers differed: blue, brown in bold, black, red, and green indicate that the data are averages of those derived in five, four, three, two, and one independent experiment, respectively.

Table S2. Bacterial strains used in this study

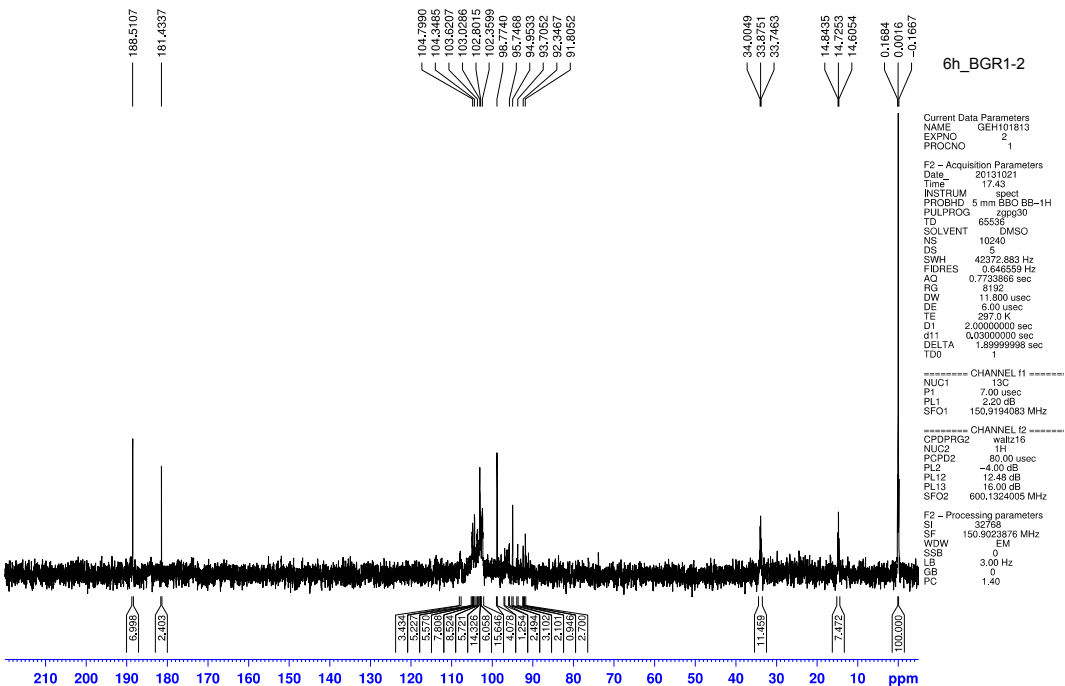
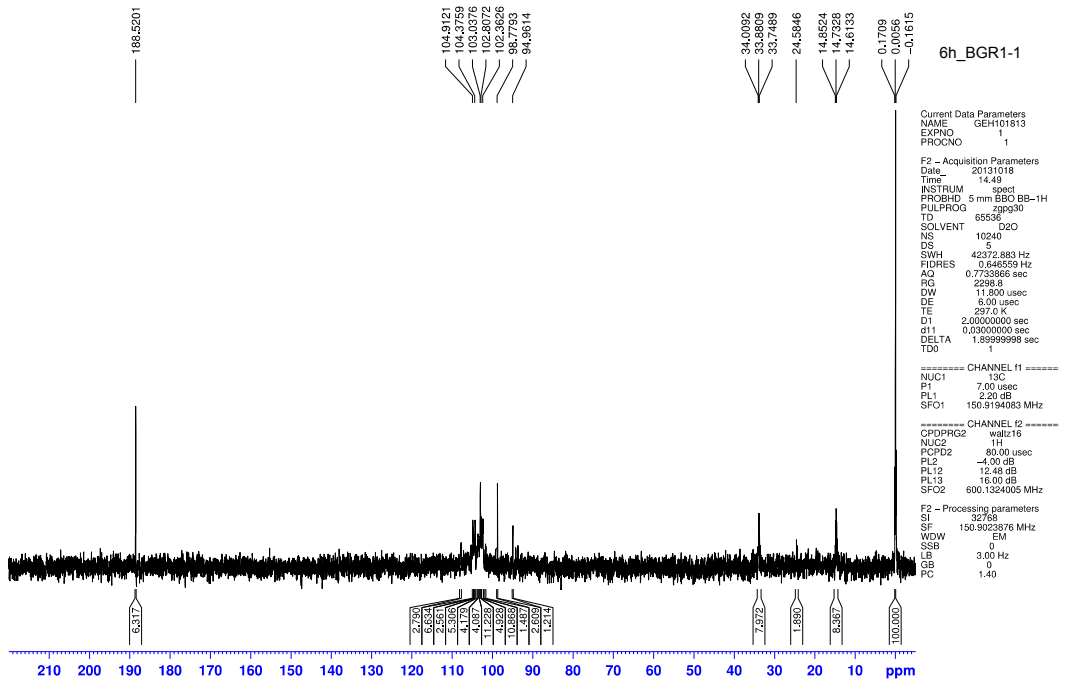
Strains	Characteristics ^a	Source or Reference
<i>B. glumae</i>		
BGR1	Wild type, Rif ^R	1
BGS2	BGR1 <i>tofI::Ω</i>	1
BGS9	BGR1 <i>qsmR::Ω</i>	3
BGS1	BGR1 <i>tofR::Ω</i>	1
S9C17	BGR1 <i>qsmR::Ω/qsmR</i>	This study
KJ1120	BGR1 <i>ptsI::mini-Tn5rescue</i>	This study

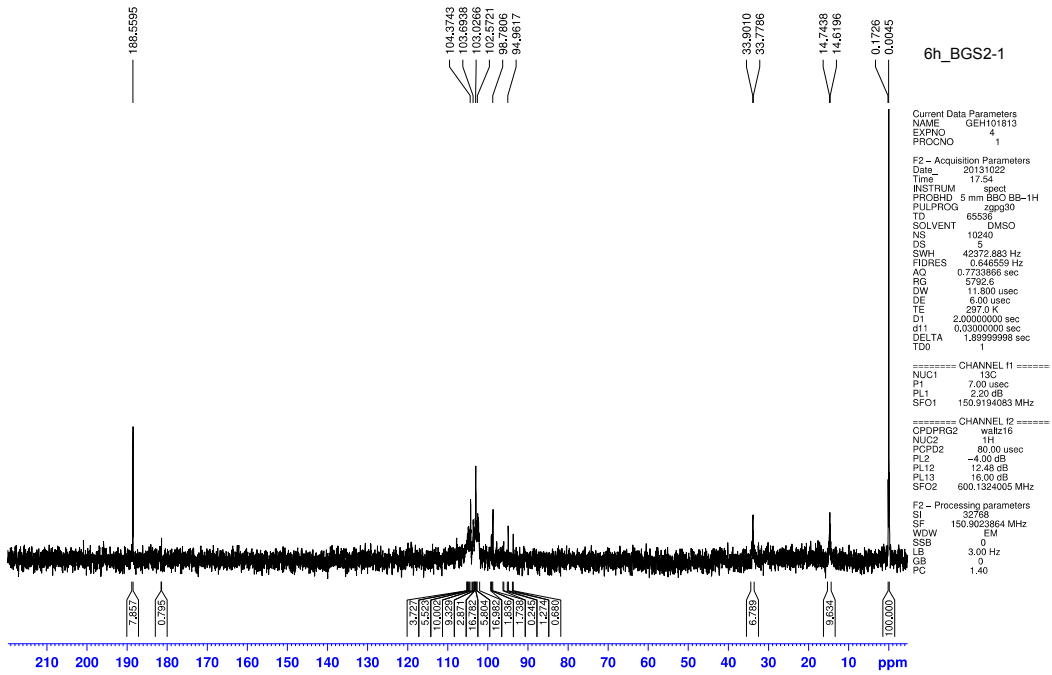
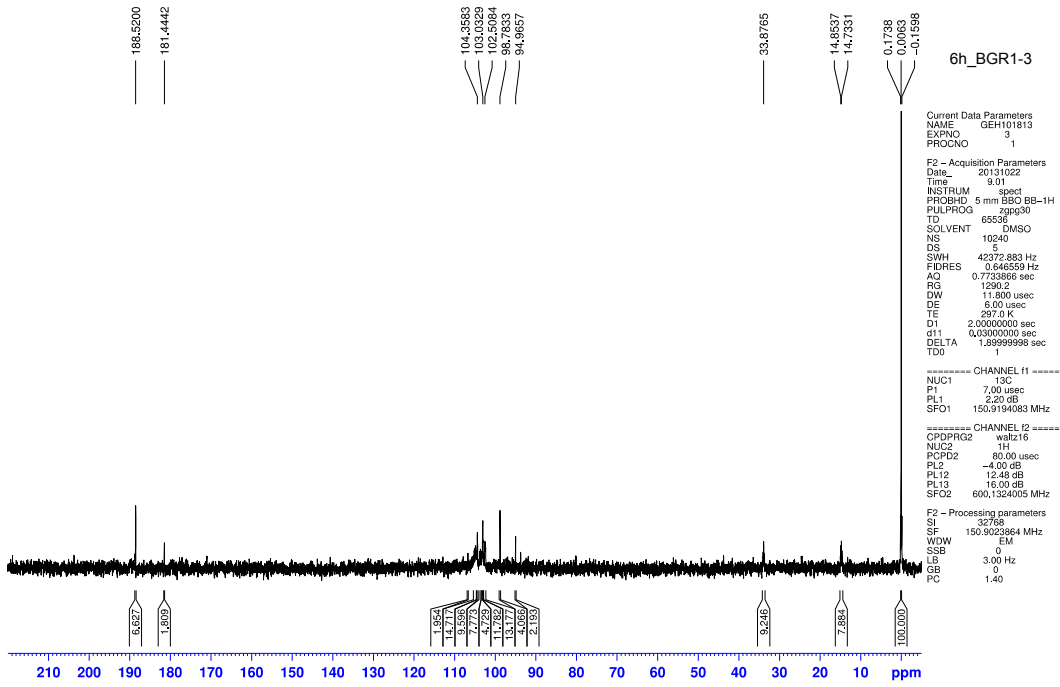
^a Rif^R, rifampicin resistance.

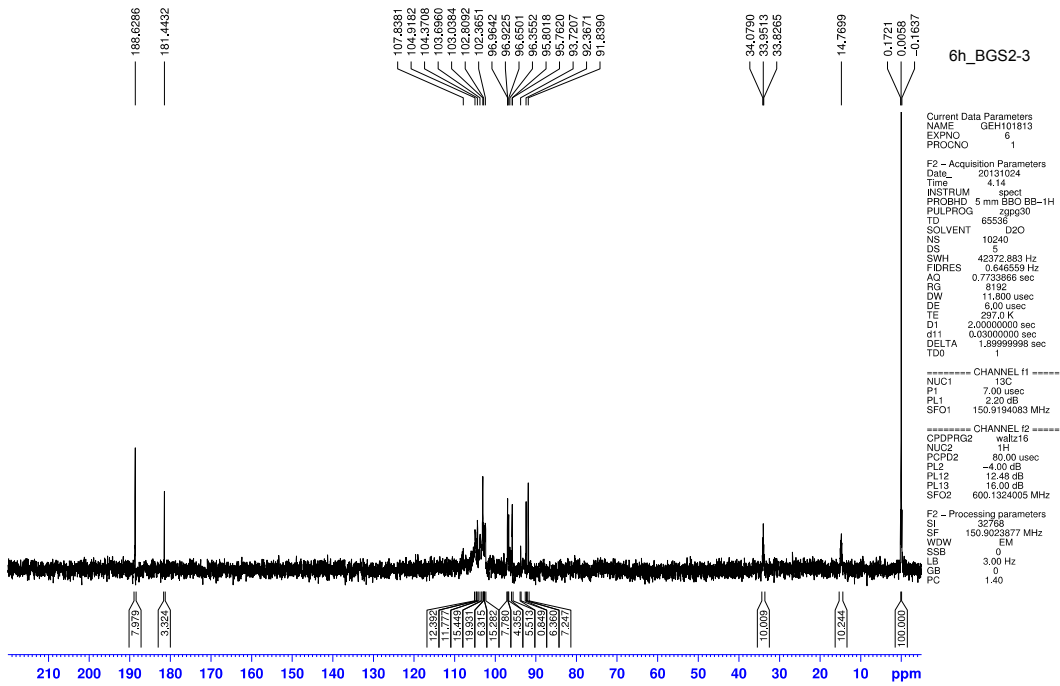
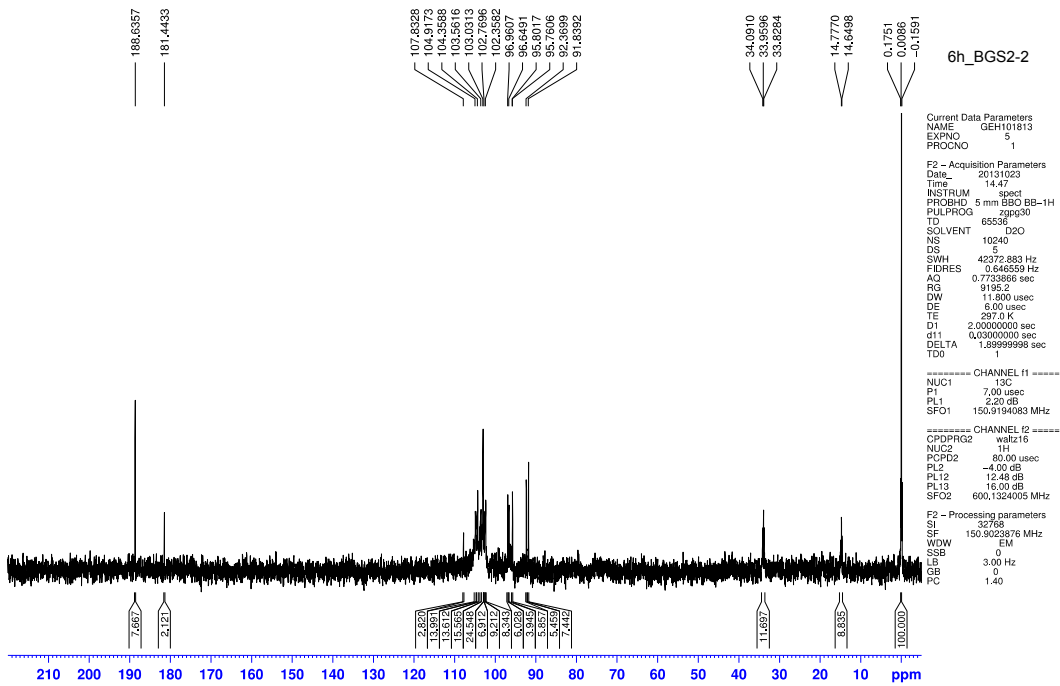
Table S3. List of oligonucleotide primers used in this study

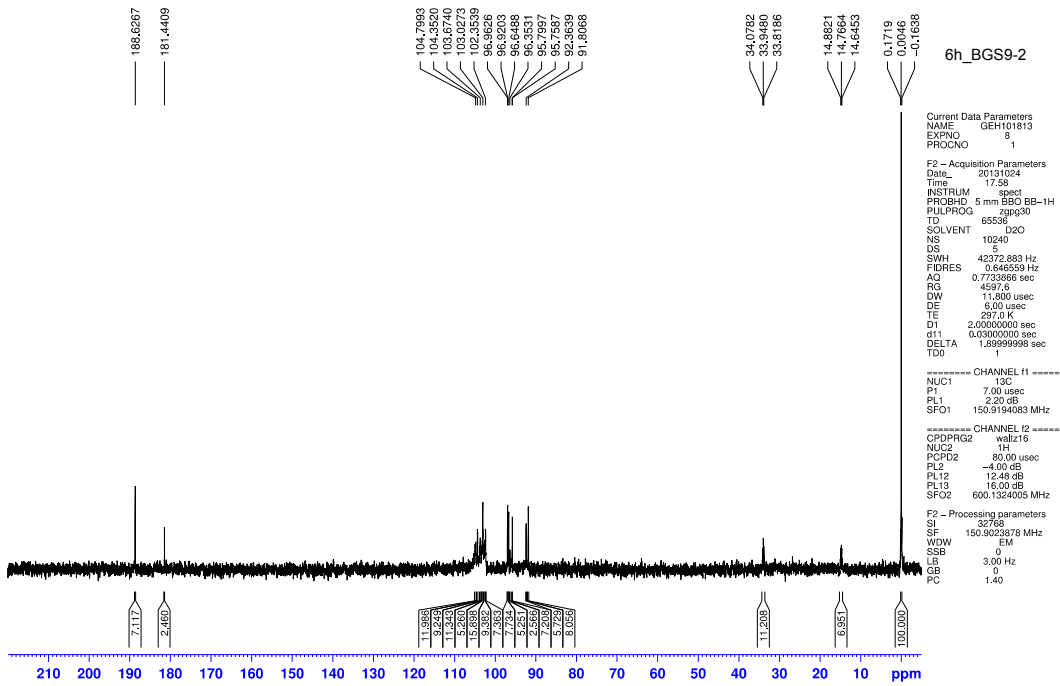
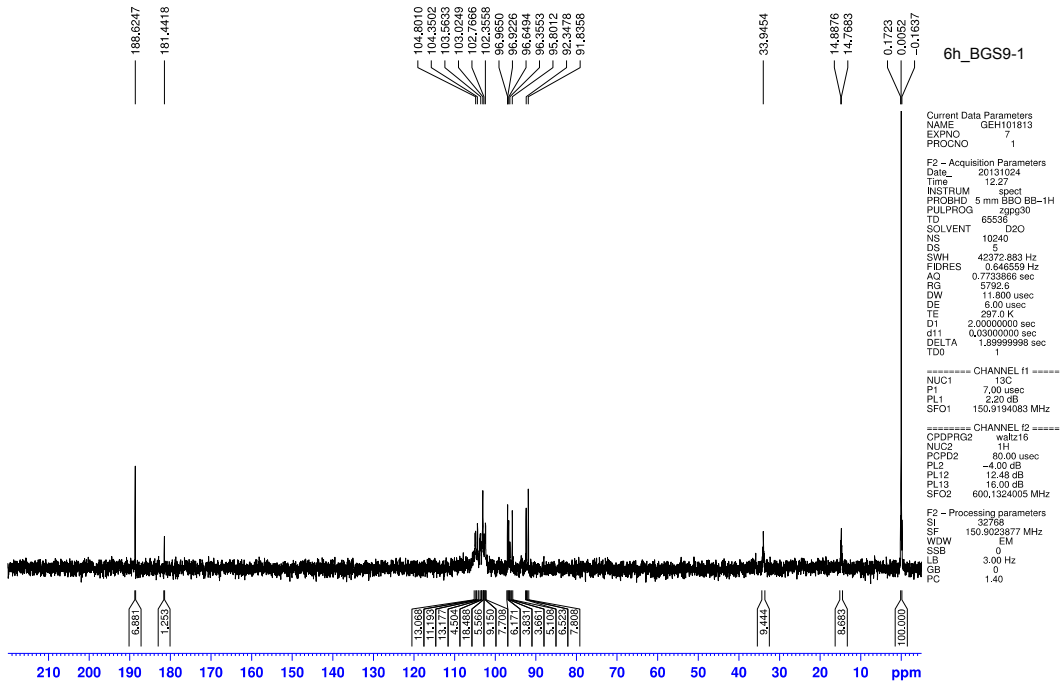
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ak-R	acgcttctcaccgtctctt
ndk-F	tcgcgcggtgaagcggag
ndk-R	cctccagaacctggatc
nrdB-F	tgttctcgcggccgtgttcgaggg
nrdB-R	tcgcatgatgtactggaact
carA-F	tgctcggccatcagatcat
carA-R	cgctggccaggtccttcac
purD-F	tgcgcgcatggagaacgac
purD-R	cccatccggcaattgaact
FAS-1	aacgaagatgttcctgct
FAS-2	ctcgagctcgacagga
NADH-1	gctgcgaccgtatcgtgc
NADH-2	gatctcgttgacgctg
pyk-1	tcgaggccgagaagtccga
pyk-2	aggtggtaggcggtaagag
pgk-1	gctggtgcgaactgggtc
pgk-2	cgagcgctcgtcgttcttct
PtsP-F	aattccctgcagcgtgaacg
PtsP-R	tgctcaagctgattgccgac
AdK-F	tcagggcccttttcagacg
AdK-R	ccaacaggatcaaacgcatg
NdpK-F	cggatagtcgttcattggtt
NdpK-R	tcgattgccataaaaactcc
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RnrB-R	agcgatgtcattgattgca
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CpsAB-R	ggcaacacggggggctcctt
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PgK-F	tgctctgatgattgaccg
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PrgS-F	tgttcggcaccaagaactga
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KatE1-R	acatcggcatcctgggtcgc

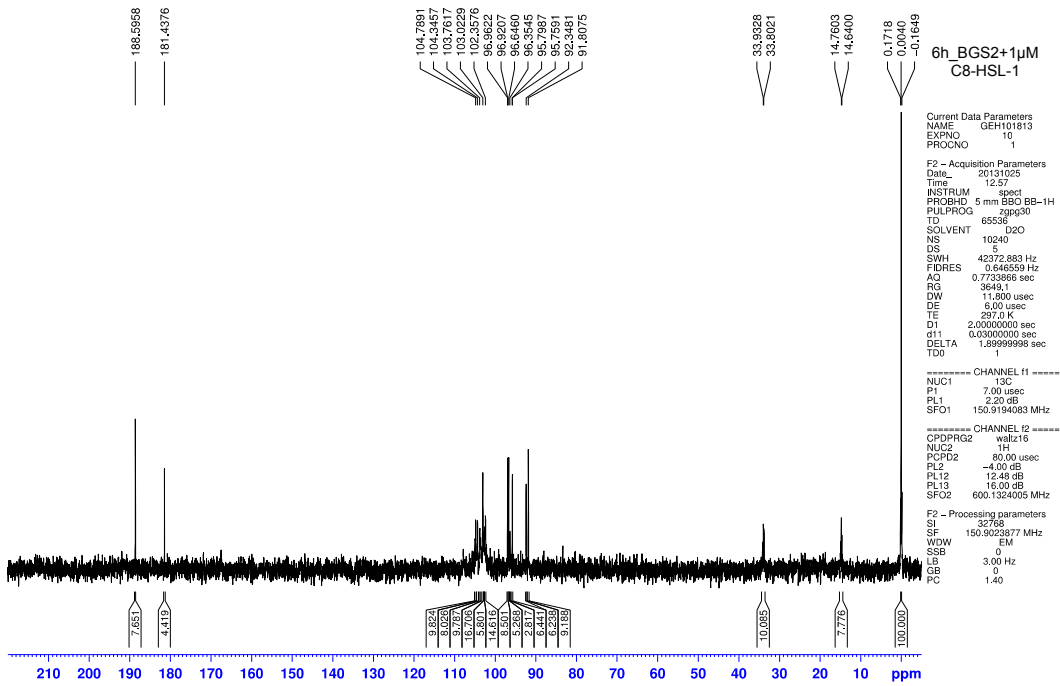
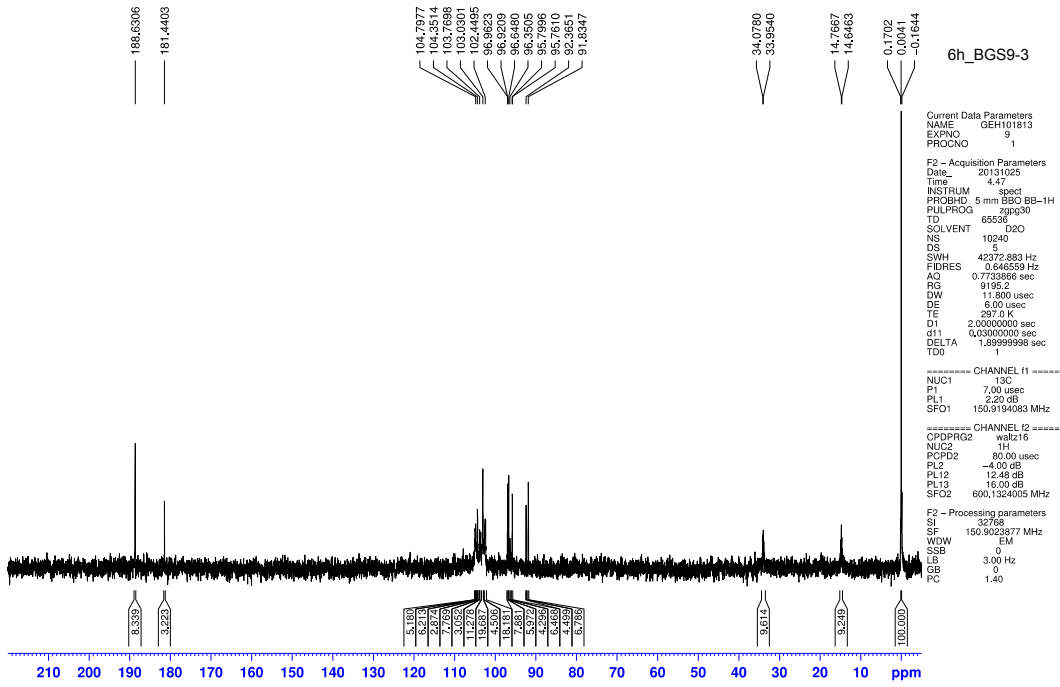
^a F, forward primer; R, reverse primer

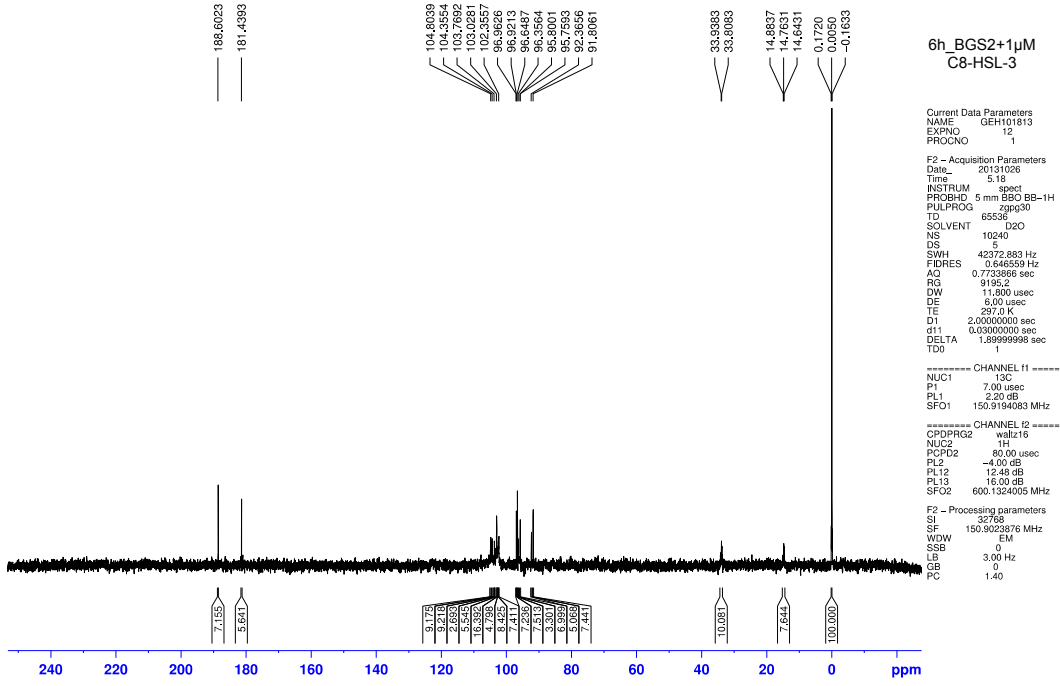
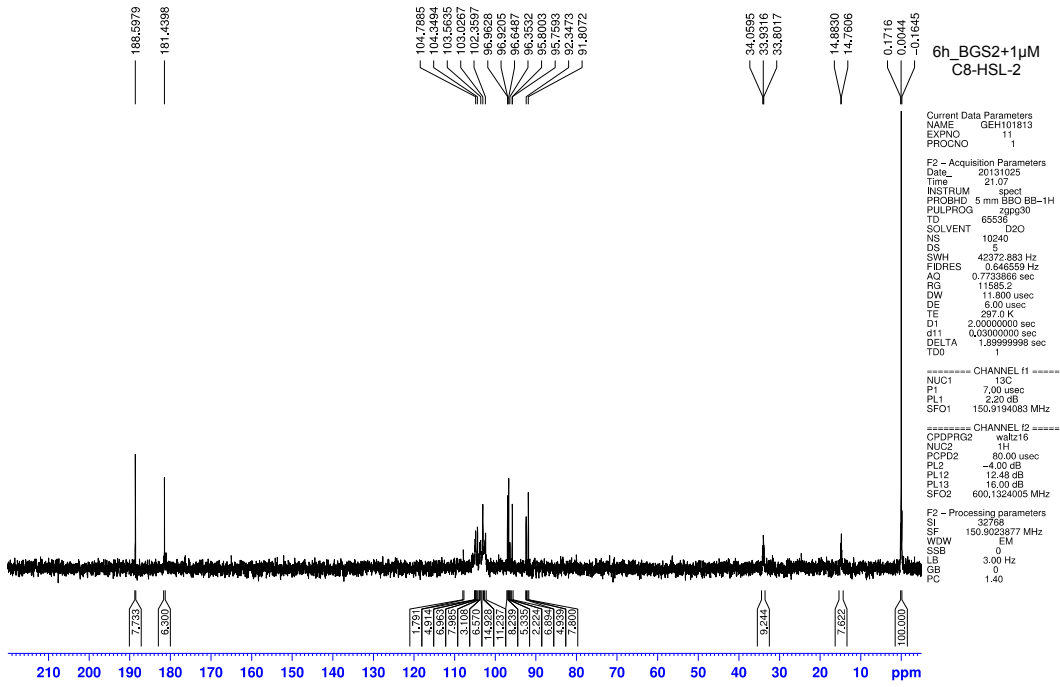


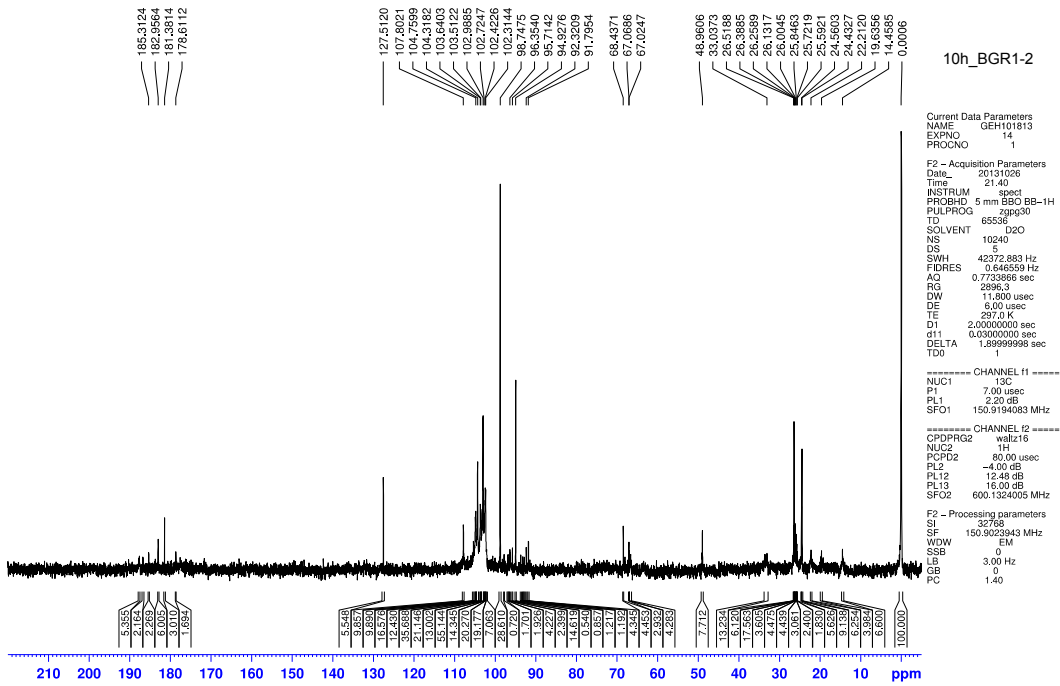
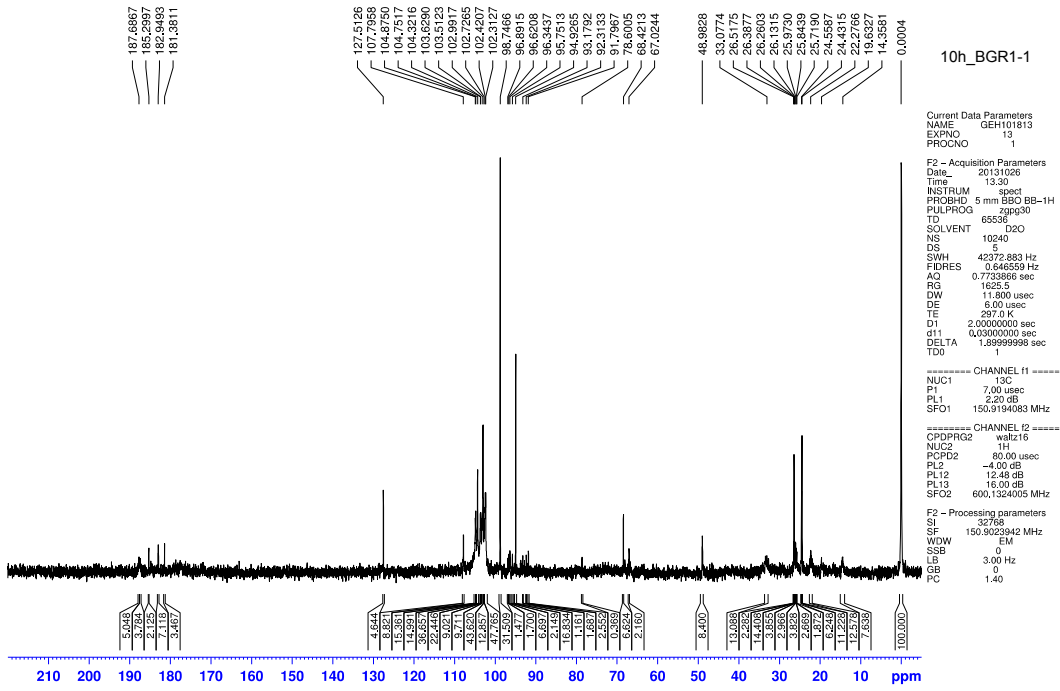


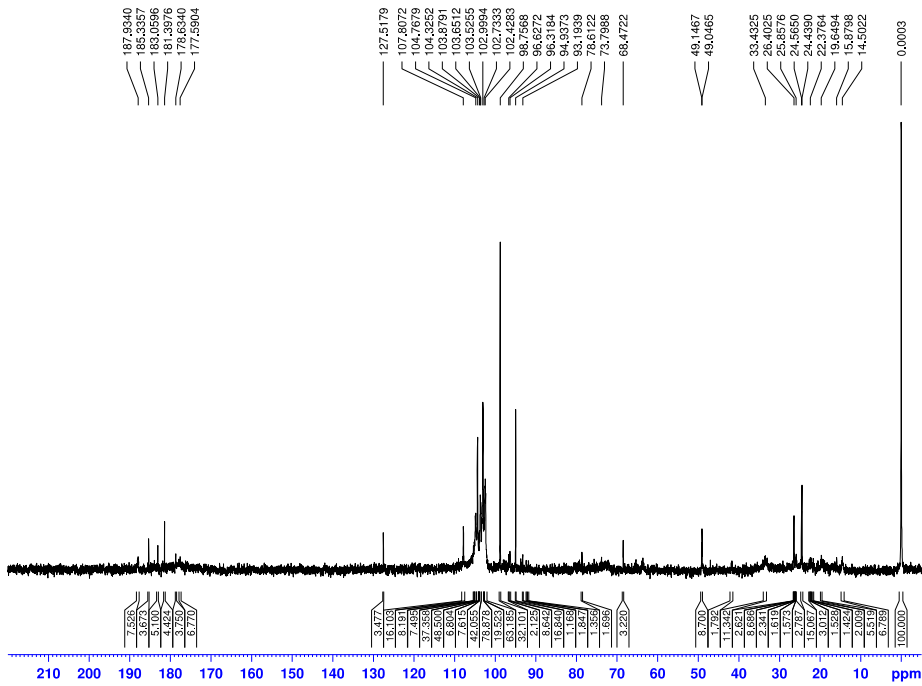
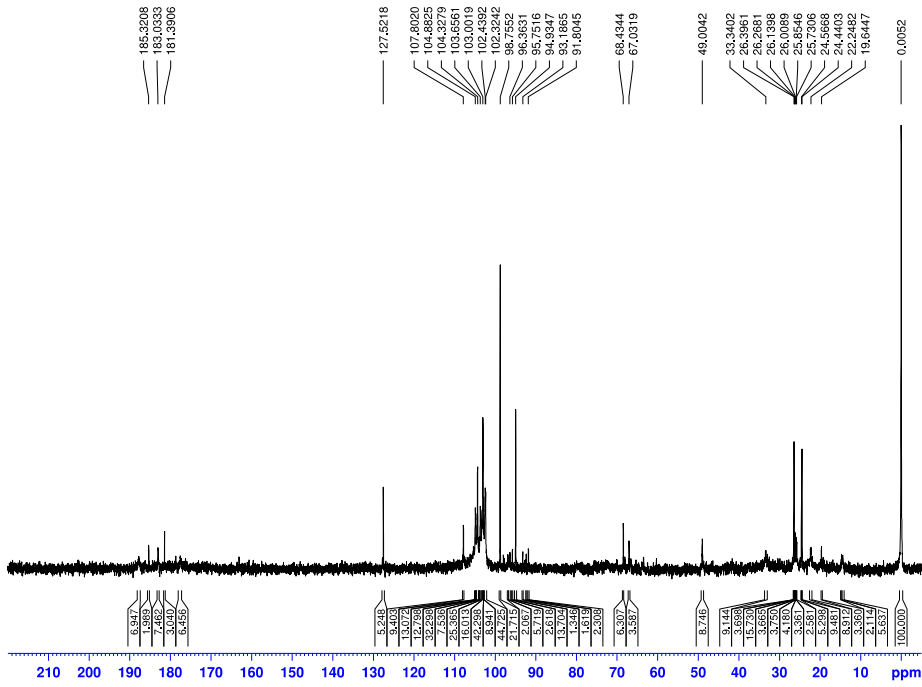


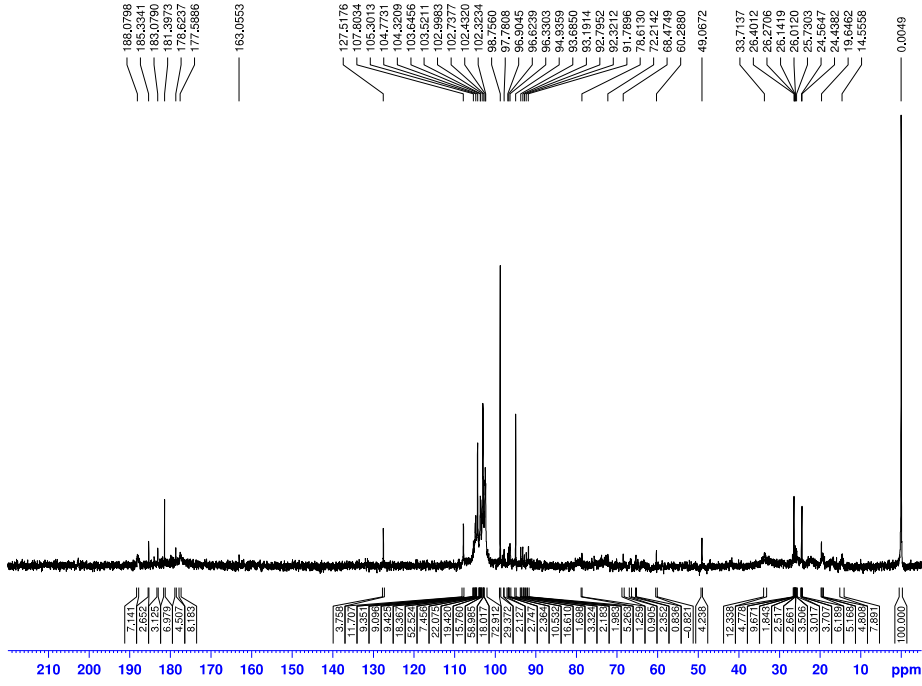
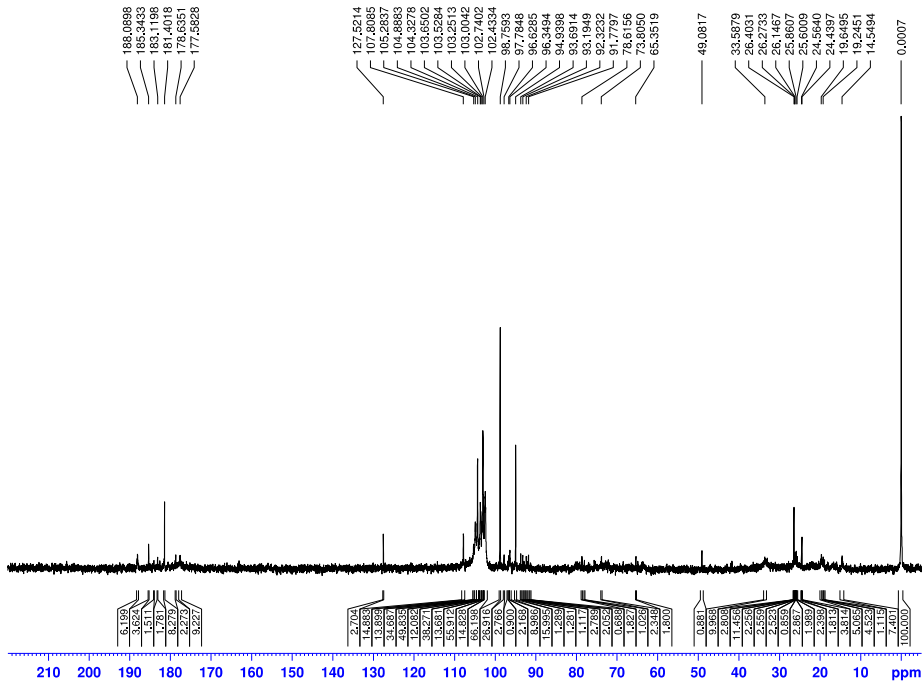


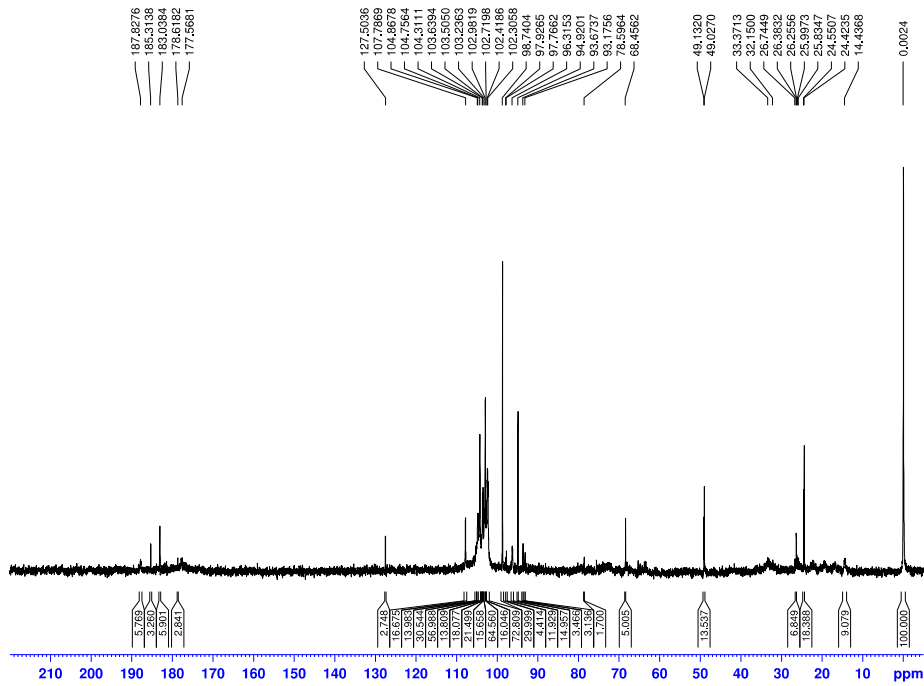
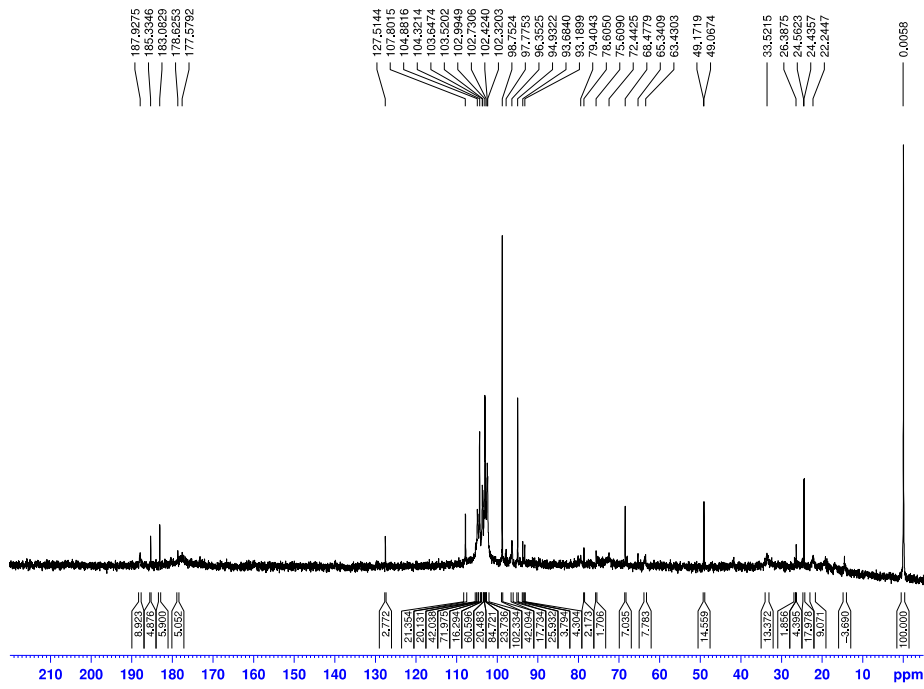


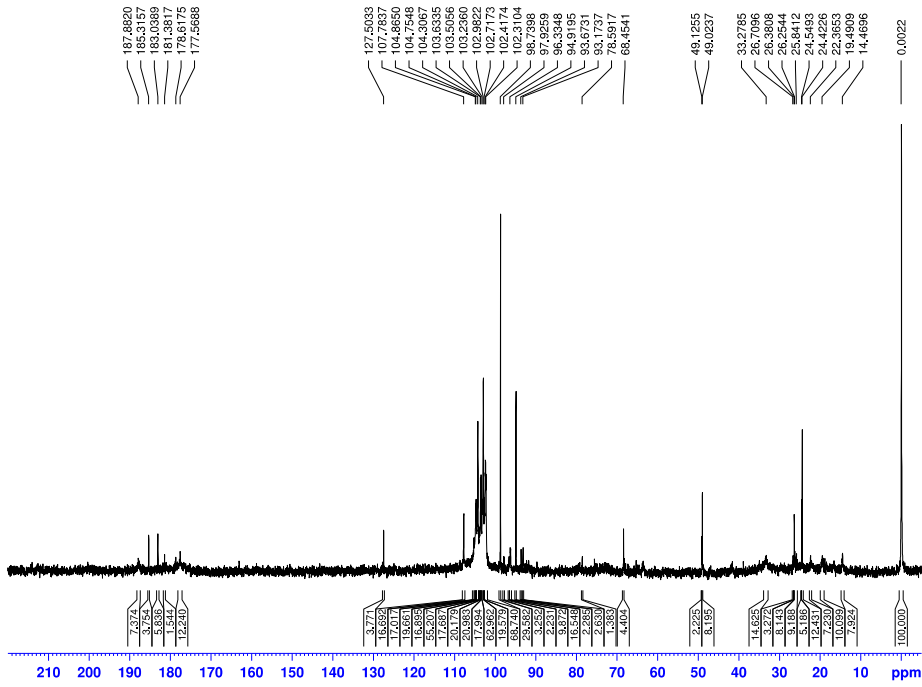












10h_BGS9-3

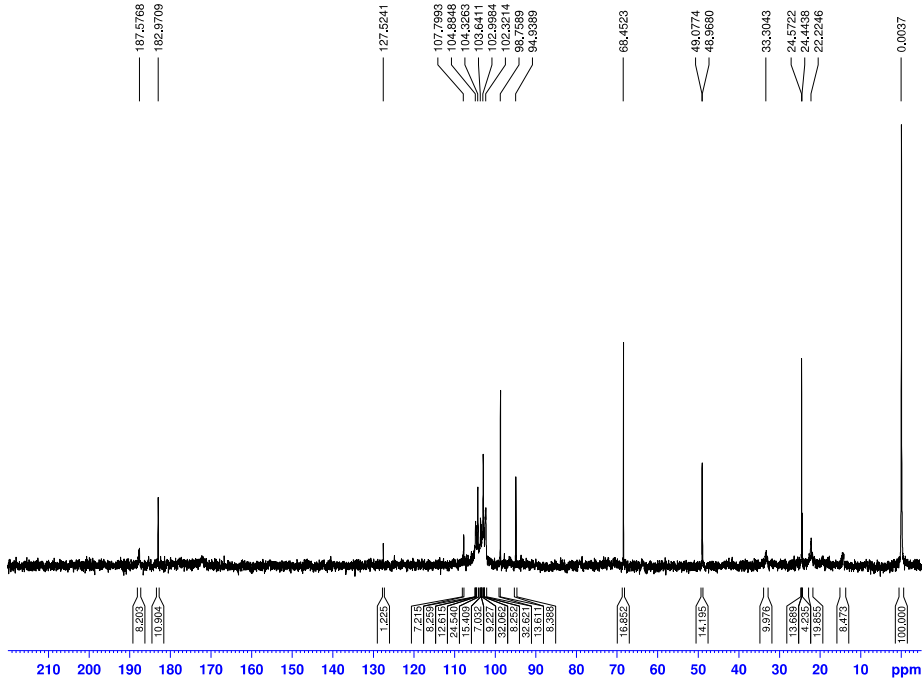
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 SOLVENT D2O
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 DS 5
 SWH 42372.883 Hz
 FIDRES 0.646559 Hz
 AQ 0.7733665 sec
 RG 2580.3
 DW 11.800 usec
 DE 6.00 usec
 TE 297.0 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 DELTA 1.8999999 sec
 TD0

----- CHANNEL f1 -----
 NUC1 13C
 P1 7.00 usec
 PL1 2.20 dB
 SFO1 150.9194083 MHz

----- CHANNEL f2 -----
 CPDPRG2 wellz16
 NUC2 1H
 PCPD2 60.00 usec
 PL2 -4.00 dB
 PL12 12.48 dB
 PL13 16.00 dB
 SFO2 600.1324005 MHz

F2 - Processing parameters
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 WDW EM
 SSB 0
 LB 3.00 Hz
 GB 0
 PC 1.40



10h_BGS2+1µM C8-HSL-1

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 DS 5
 SWH 42372.883 Hz
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 AQ 0.7733665 sec
 RG 7296.2
 DW 11.800 usec
 DE 6.00 usec
 TE 297.0 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 DELTA 1.8999999 sec
 TD0

----- CHANNEL f1 -----
 NUC1 13C
 P1 7.00 usec
 PL1 2.20 dB
 SFO1 150.9194083 MHz

----- CHANNEL f2 -----
 CPDPRG2 wellz16
 NUC2 1H
 PCPD2 60.00 usec
 PL2 -4.00 dB
 PL12 12.48 dB
 PL13 16.00 dB
 SFO2 600.1324005 MHz

F2 - Processing parameters
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 WDW EM
 SSB 0
 LB 3.00 Hz
 GB 0
 PC 1.40

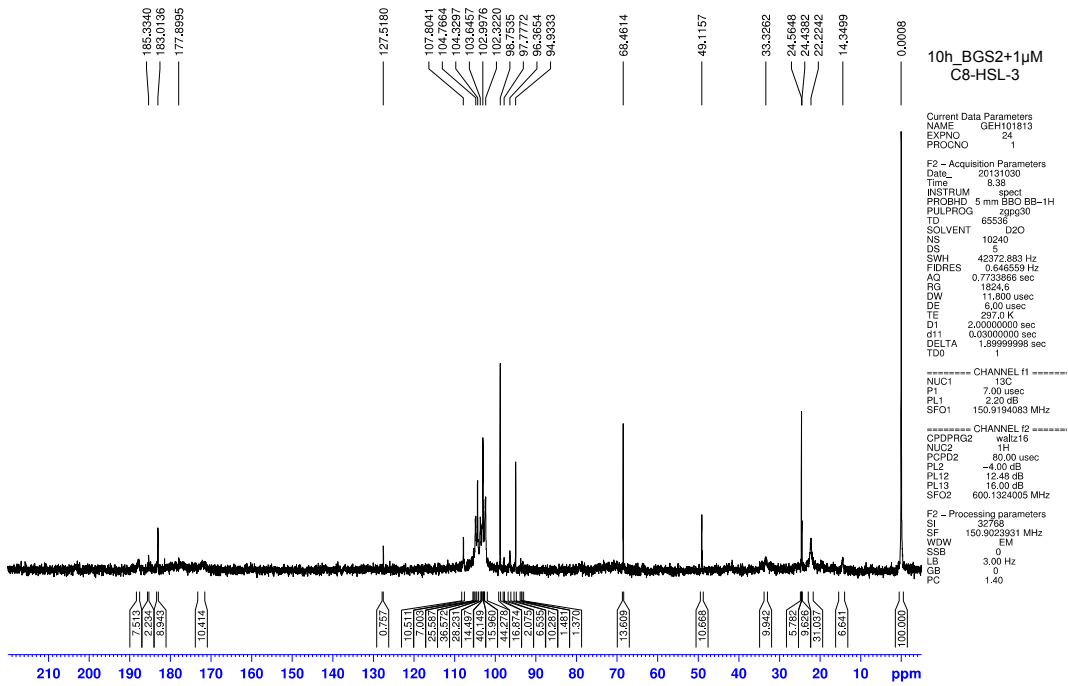
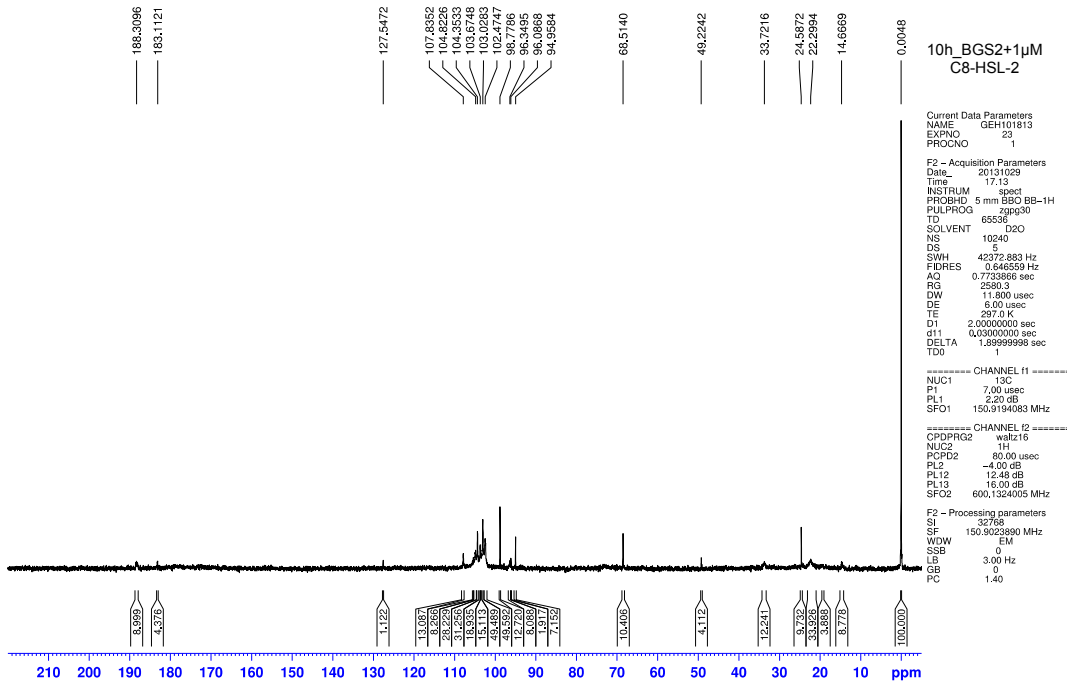


Fig. S1. The levels of $[^{13}\text{C}]$ -labeled metabolites in wild-type BGR1, the *tofI* mutant BGS2, and the *qsmR* mutant BGS9, measured using $[^{13}\text{C}]$ -nuclear magnetic resonance spectroscopy.

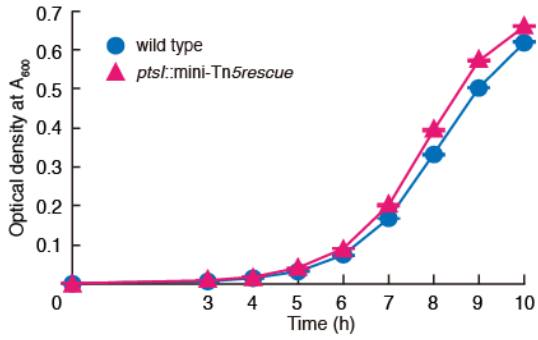


Fig. S2. Growth of the *ptsI* mutant KJ1120.

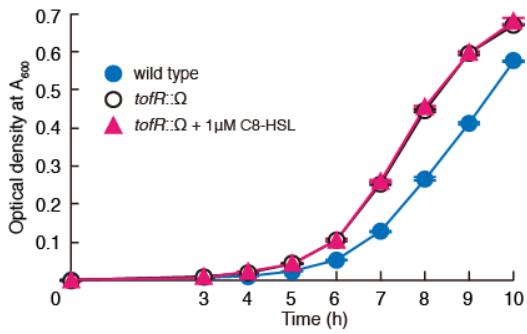
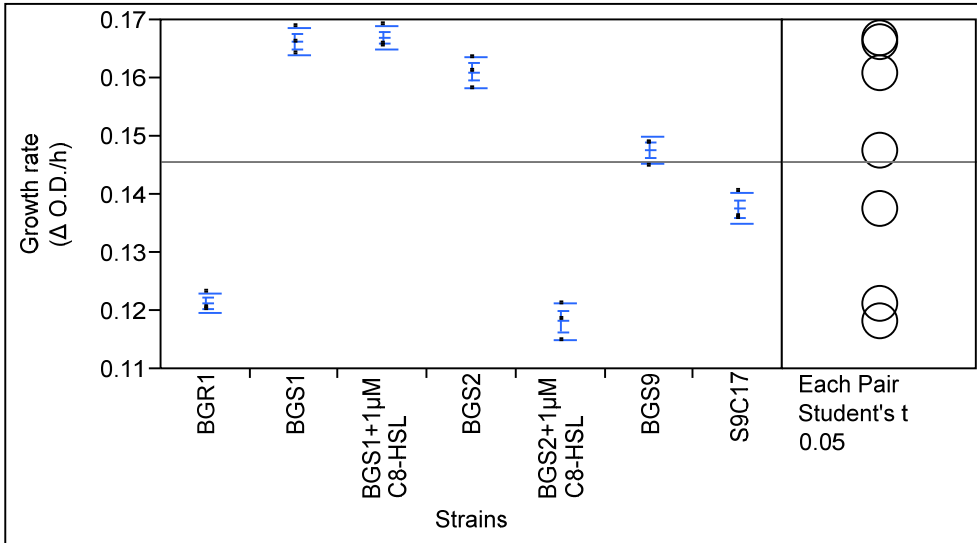


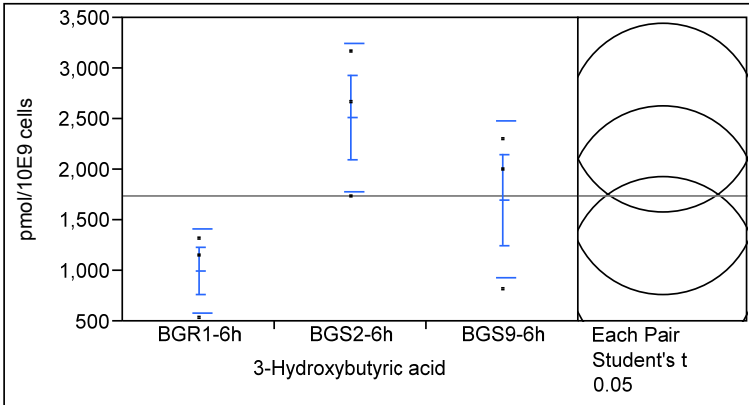
Fig. S3. Growth of the *tofR* mutant BGS1 in the absence and presence of C8-HSL. Error bars represent the error ranges of triplicate experiments.



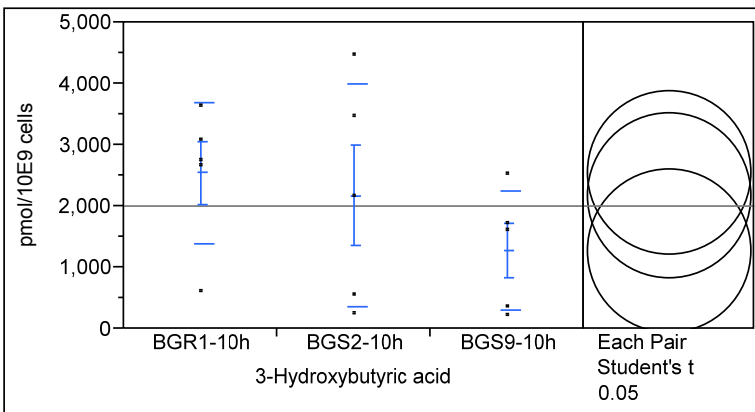
Strain	Number of Replicates	Mean	Std Dev	Connecting Letters
BGR1	3	0.121389	0.001578	E
BGS1	3	0.166427	0.002350	A
BGS1+1μM C8-HSL	3	0.166988	0.001992	A
BGS2	3	0.161064	0.002636	B
BGS2+1μM C8-HSL	3	0.118289	0.003131	E
BGS9	3	0.147775	0.002332	C
S9C17	3	0.137593	0.002627	D

Strain vs Strain		p-Value
BGS1+1μM C8-HSL	BGS2+1μM C8-HSL	<.0001
BGS1	BGS2+1μM C8-HSL	<.0001
BGS1+1μM C8-HSL	BGR1	<.0001
BGS1	BGR1	<.0001
BGS2	BGS2+1μM C8-HSL	<.0001
BGS2	BGR1	<.0001
BGS9	BGS2+1μM C8-HSL	<.0001
BGS1+1μM C8-HSL	S9C17	<.0001
BGS1	S9C17	<.0001
BGS9	BGR1	<.0001
BGS2	S9C17	<.0001
S9C17	BGS2+1μM C8-HSL	<.0001
BGS1+1μM C8-HSL	BGS9	<.0001
BGS1	BGS9	<.0001
S9C17	BGR1	<.0001
BGS2	BGS9	<.0001
BGS9	S9C17	0.0001
BGS1+1μM C8-HSL	BGS2	0.0097
BGS1	BGS2	0.0169
BGR1	BGS2+1μM C8-HSL	0.1393
BGS1+1μM C8-HSL	BGS1	0.7809

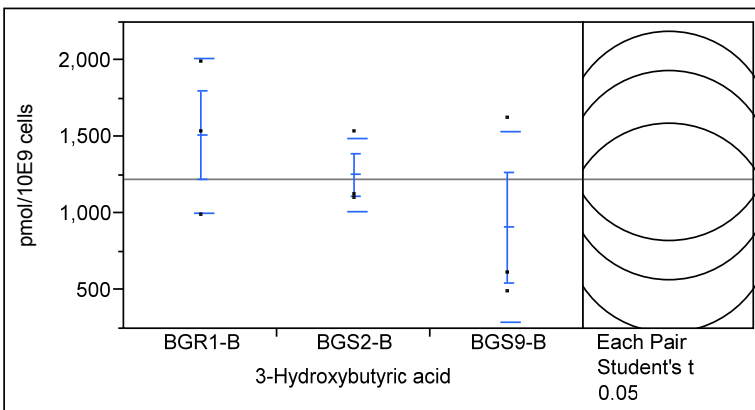
Fig. S4. Statistical analysis of differences in the growth rates [Δ optical density (O.D.)/h] of wild-type BGR1 and two QS-defective mutants, BGS2 (BGR1 *tofI::\Omega*) and BGS1 (BGR1 *tofR::\Omega*) in the absence and presence of C8-HSL, and BGS9 (BGR1 *qsmR::\Omega*), and S9C17 (BGR1 *qsmR::\Omega/qsmR*) during the exponential growth stage (6 to 9 hours after subculture).



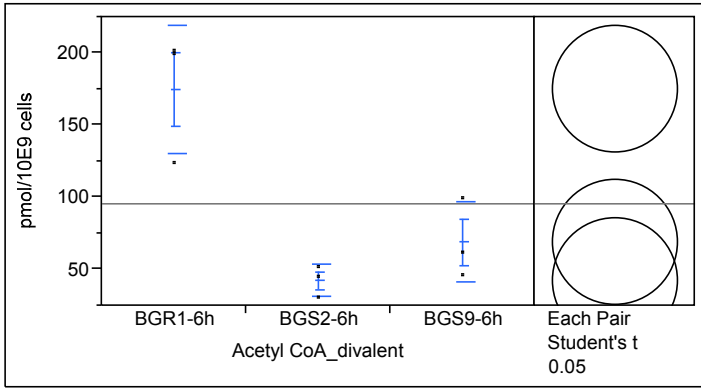
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	1000.67	410.665	B	
BGS2-6 h (LB)	3	2518.00	729.095	A	0.0306
BGS9-6 h (LB)	3	1707.33	779.556	AB	0.2379



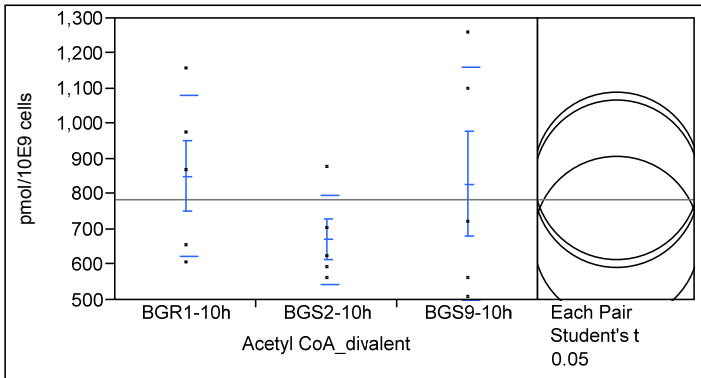
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	2549.60	1148.32	A	
BGS2-10 h (LB)	5	2180.40	1829.04	A	0.6773
BGS9-10 h (LB)	5	1282.60	977.33	A	0.1690



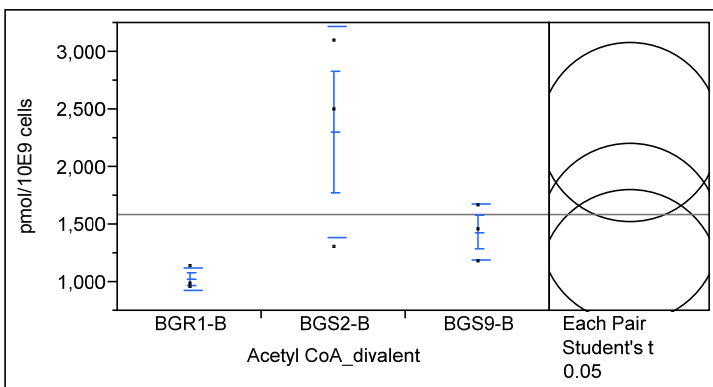
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	1511.33	500.252	A	
BGS2-10 h (BLB)	3	1256.33	241.540	A	0.5416
BGS9-10 h (BLB)	3	914.33	624.959	A	0.1807



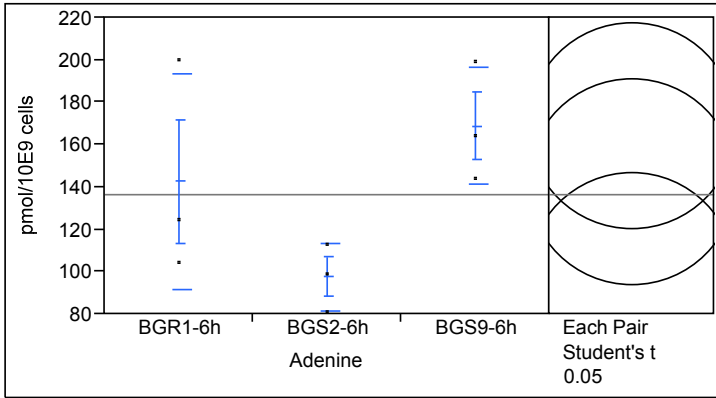
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	175.333	44.4672	A	
BGS2-6 h (LB)	3	42.667	10.6927	B	0.0019
BGS9-6 h (LB)	3	69.333	27.7369	B	0.0057



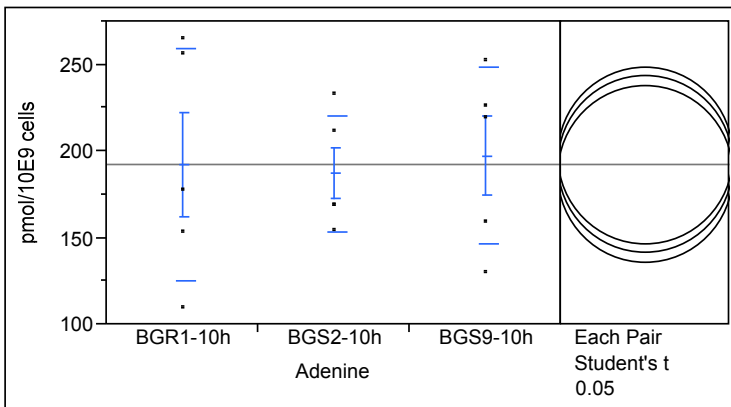
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	853.000	227.729	A	
BGS2-10 h (LB)	5	673.000	126.911	A	0.2653
BGS9-10 h (LB)	5	830.800	331.679	A	0.8878



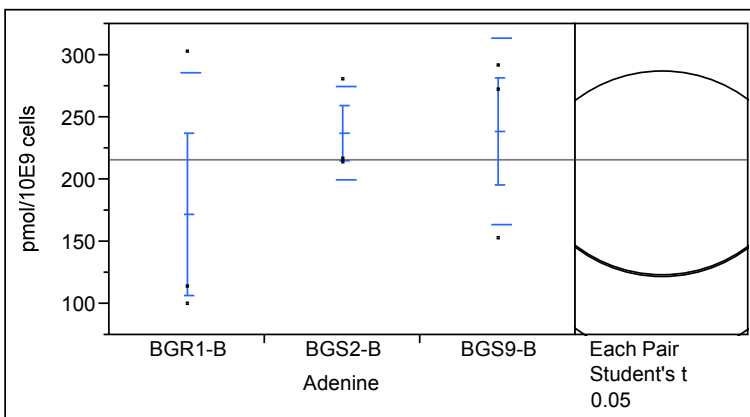
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	1031.00	94.726	B	
BGS2-10 h (BLB)	3	2301.00	916.515	A	0.0301
BGS9-10 h (BLB)	3	1436.67	244.909	AB	0.4015



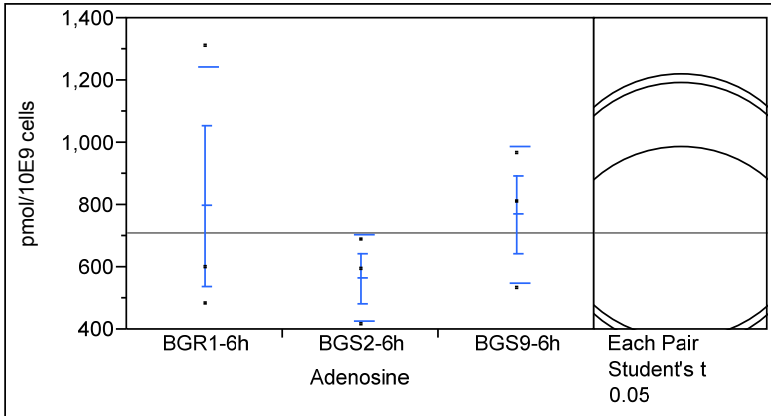
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6h (LB)	3	142.667	50.6491	AB	
BGS2-6h (LB)	3	97.667	16.0416	B	0.1626
BGS9-6h (LB)	3	169.000	27.8388	A	0.3876



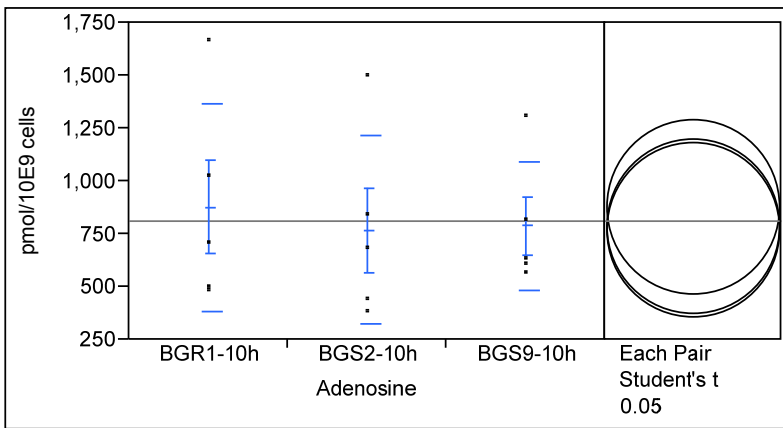
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	192.600	67.0694	A	
BGS2-10 h (LB)	5	187.400	33.4559	A	0.8779
BGS9-10 h (LB)	5	197.600	51.0813	A	0.8825



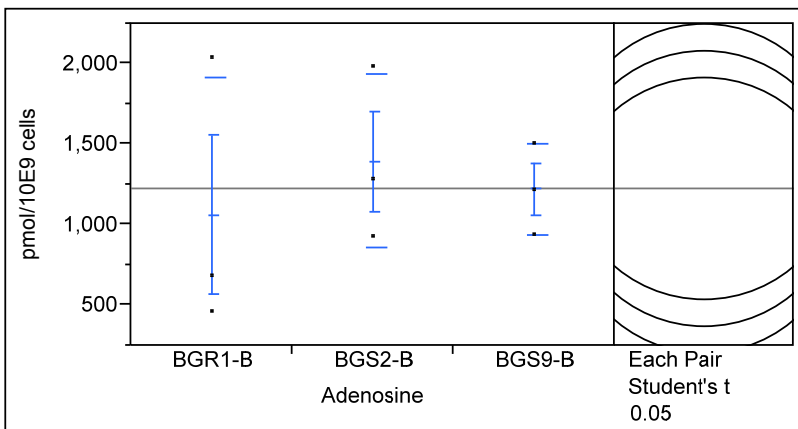
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	172.333	113.377	A	
BGS2-10 h (BLB)	3	237.333	37.846	A	0.3659
BGS9-10 h (BLB)	3	238.667	74.795	A	0.3568



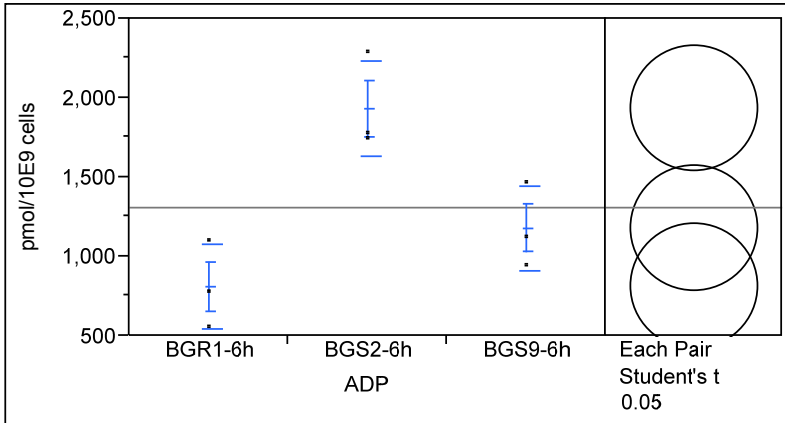
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	797.667	448.458	A	
BGS2-6 h (LB)	3	566.333	139.880	A	0.3806
BGS9-6 h (LB)	3	770.000	219.748	A	0.9136



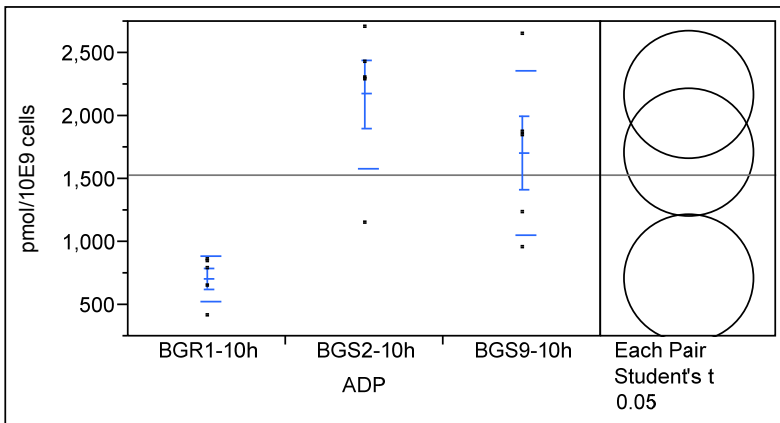
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	878.000	491.135	A	
BGS2-10 h (LB)	5	769.400	446.677	A	0.6915
BGS9-10 h (LB)	5	788.400	307.088	A	0.7431



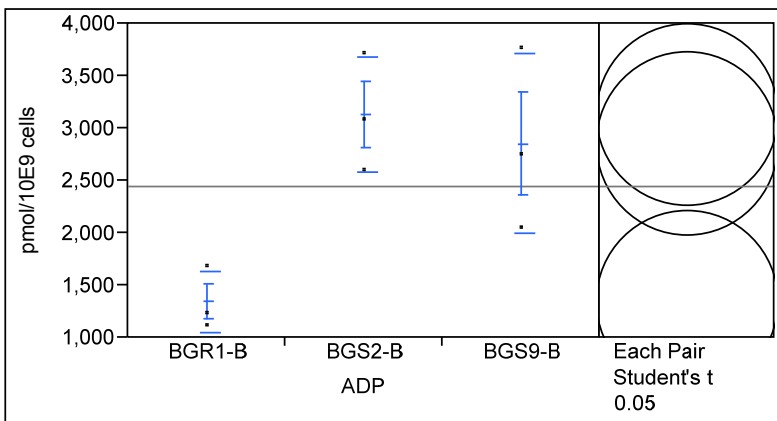
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	1062.33	856.918	A	
BGS2-10 h (BLB)	3	1397.00	538.454	A	0.5244
BGS9-10 h (BLB)	3	1224.33	282.525	A	0.7547



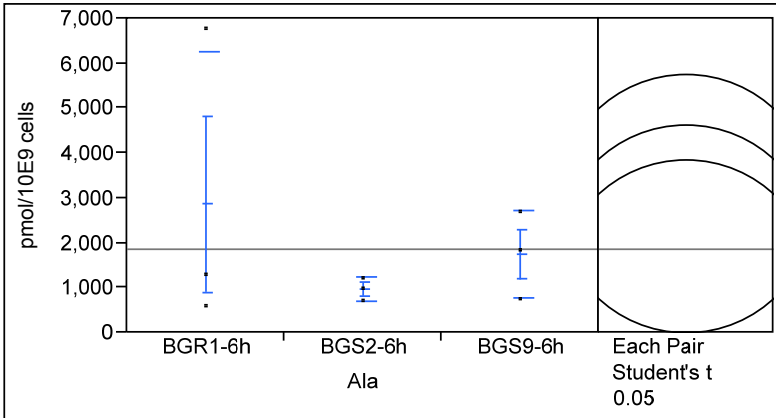
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	812.67	269.897	B	
BGS2-6 h (LB)	3	1935.67	302.855	A	0.0027
BGS9-6 h (LB)	3	1181.00	265.157	B	0.1580



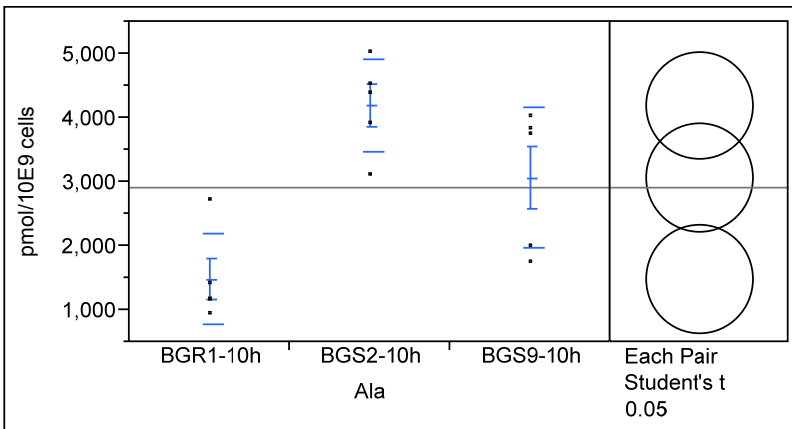
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	712.80	182.429	B	
BGS2-10 h (LB)	5	2174.20	597.504	A	0.0008
BGS9-10 h (LB)	5	1712.20	654.220	A	0.0106



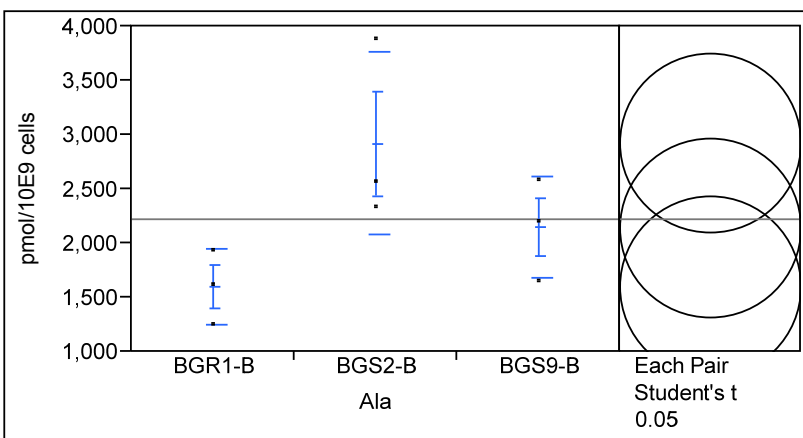
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	1345.33	291.790	B	
BGS2-10 h (BLB)	3	3134.33	554.272	A	0.0120
BGS9-10 h (BLB)	3	2857.00	863.674	A	0.0238



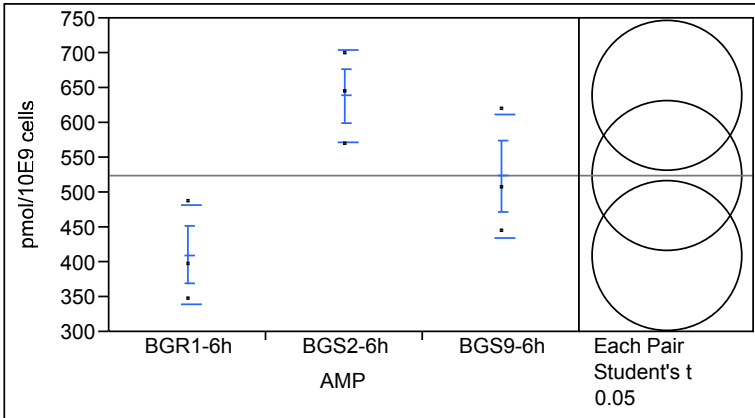
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	2869.33	3388.25	A	
BGS2-6 h (LB)	3	970.33	254.96	A	0.2977
BGS9-6 h (LB)	3	1747.00	969.56	A	0.5255



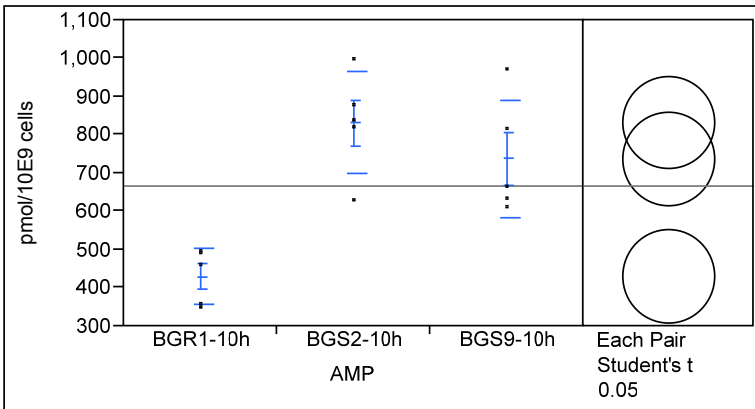
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	1479.80	715.56	B	
BGS2-10 h (LB)	5	4193.00	718.02	A	0.0003
BGS9-10 h (LB)	5	3066.60	1103.99	A	0.0133



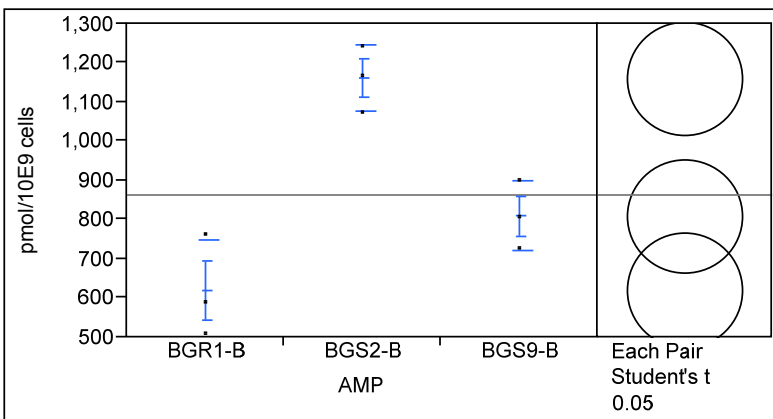
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	1600.33	344.840	B	
BGS2-10 h (BLB)	3	2923.33	835.429	A	0.0327
BGS9-10 h (BLB)	3	2145.67	463.855	AB	0.2982



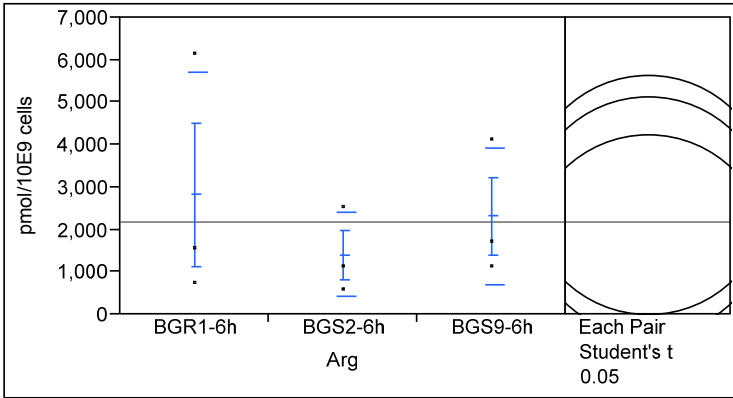
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	411.000	71.0422	B	
BGS2-6 h (LB)	3	639.000	65.7799	A	0.0104
BGS9-6 h (LB)	3	524.000	89.0842	AB	0.1183



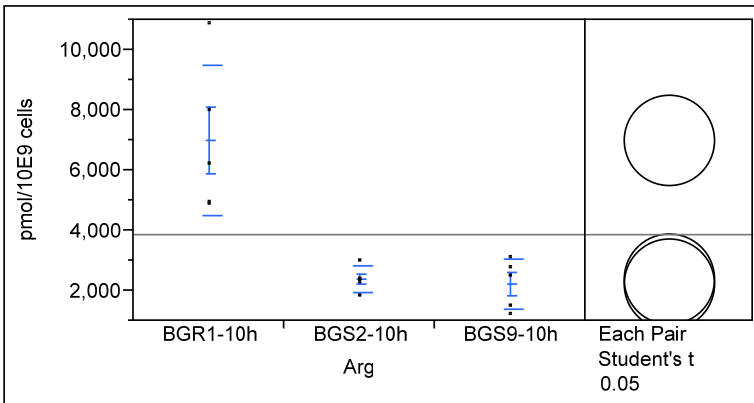
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	430.600	71.811	B	
BGS2-10 h (LB)	5	832.400	134.091	A	0.0003
BGS9-10 h (LB)	5	738.000	151.821	A	0.0020



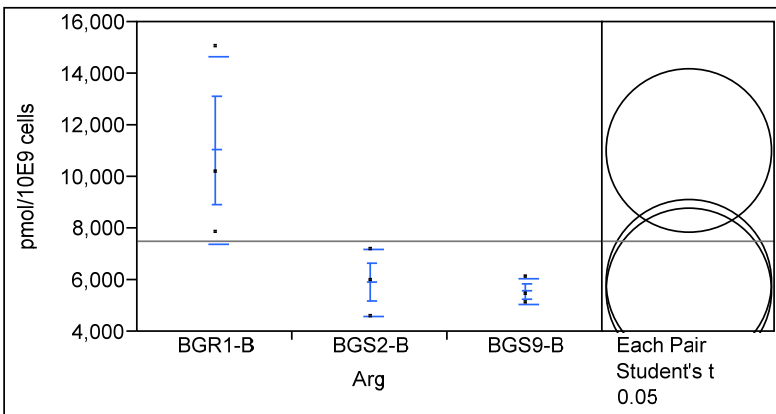
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	620.00	128.713	B	
BGS2-10 h (BLB)	3	1161.00	84.717	A	0.0006
BGS9-10 h (BLB)	3	810.33	87.580	B	0.0630



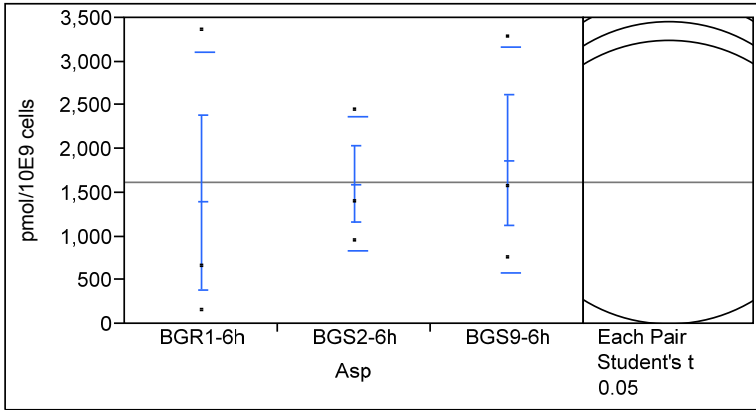
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	2820.67	2914.93	A	
BGS2-6 h (LB)	3	1409.67	999.17	A	0.4221
BGS9-6 h (LB)	3	2317.00	1605.63	A	0.7689



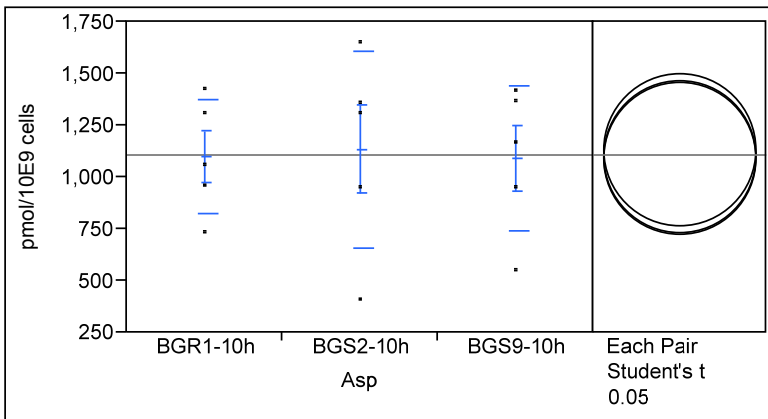
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	6997.80	2520.62	A	
BGS2-10 h (LB)	5	2386.40	419.68	B	0.0005
BGS9-10 h (LB)	5	2222.40	810.07	B	0.0004



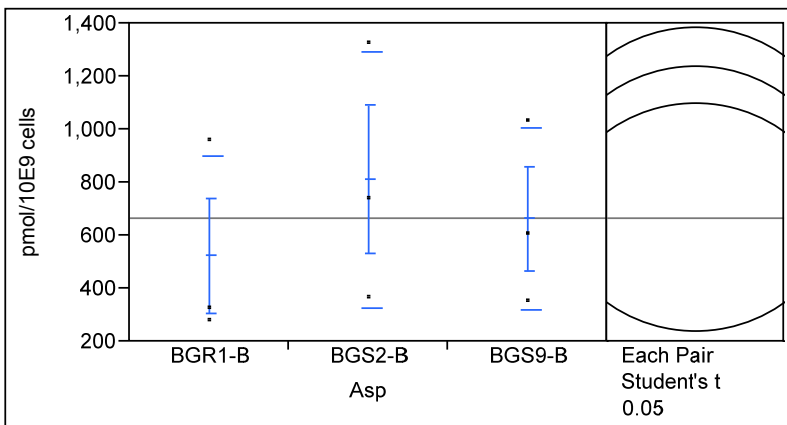
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	11033.3	3653.77	A	
BGS2-10 h (BLB)	3	5928.7	1303.96	B	0.0325
BGS9-10 h (BLB)	3	5577.3	502.13	B	0.0253



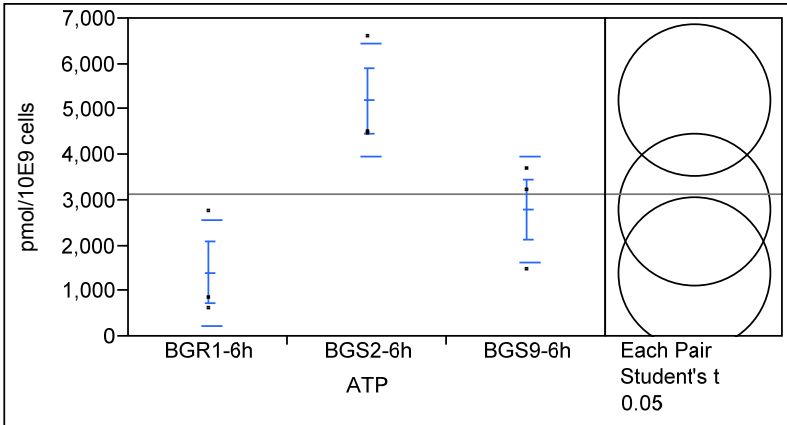
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	1392.00	1723.46	A	
BGS2-6 h (LB)	3	1601.67	765.88	A	0.8522
BGS9-6 h (LB)	3	1871.67	1291.81	A	0.6718



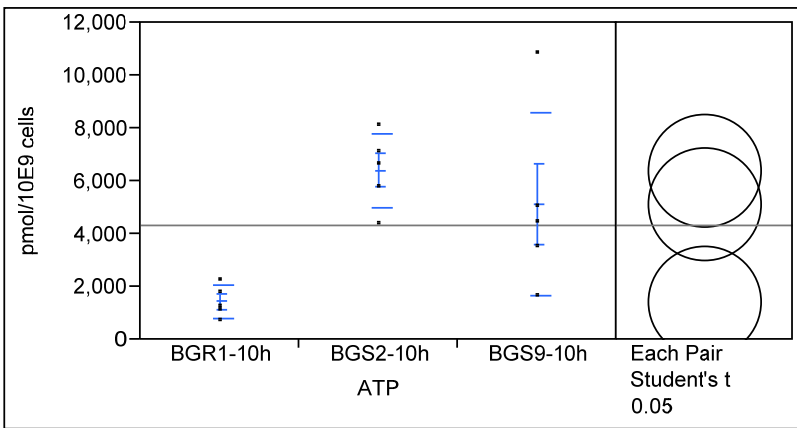
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	1098.40	274.367	A	
BGS2-10 h (LB)	5	1134.20	476.214	A	0.8832
BGS9-10 h (LB)	5	1091.40	353.263	A	0.9771



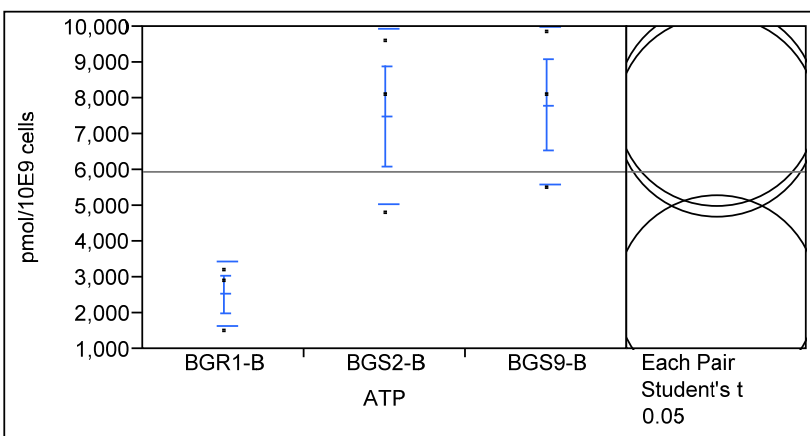
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	523.333	378.093	A	
BGS2-10 h (BLB)	3	811.000	483.268	A	0.4187
BGS9-10 h (BLB)	3	664.000	342.959	A	0.6860



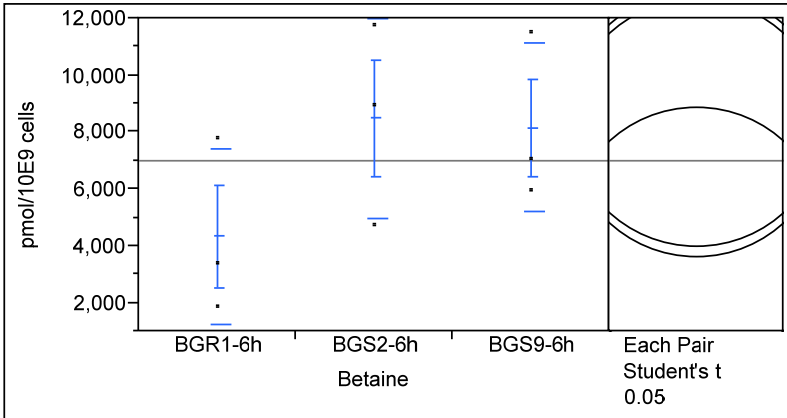
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	1411.67	1167.81	B	
BGS2-6 h (LB)	3	5201.67	1235.57	A	0.0079
BGS9-6 h (LB)	3	2805.33	1159.91	B	0.2009



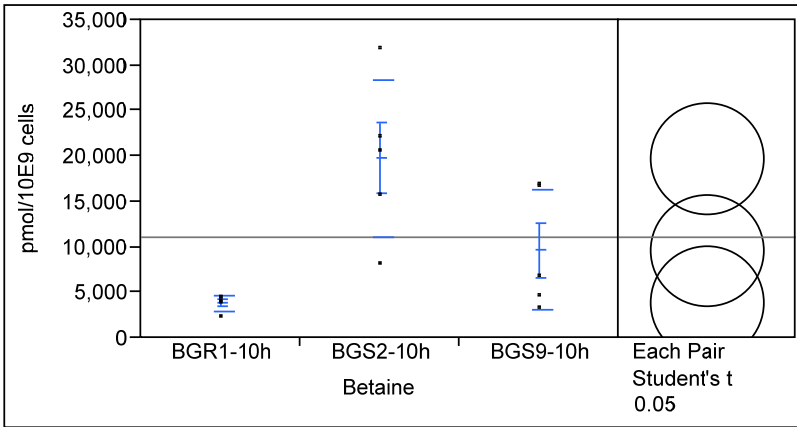
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	1434.40	606.94	B	
BGS2-10 h (LB)	5	6425.40	1407.59	A	0.0035
BGS9-10 h (LB)	5	5124.60	3454.71	A	0.0203



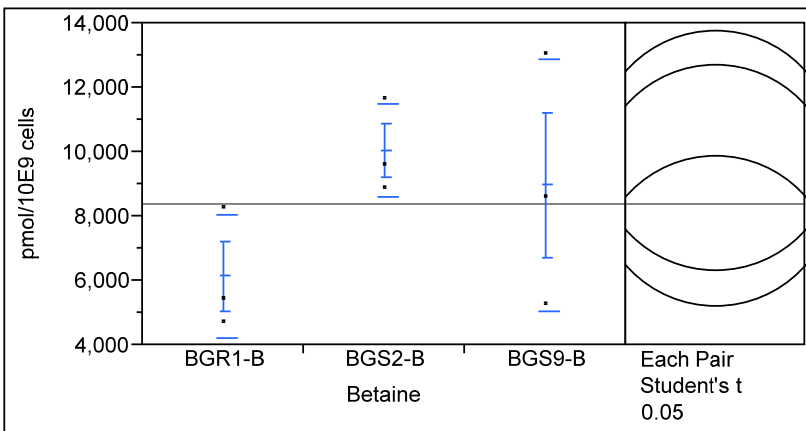
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	2536.00	907.94	B	
BGS2-10 h (BLB)	3	7508.33	2450.71	A	0.0214
BGS9-10 h (BLB)	3	7807.00	2197.40	A	0.0169



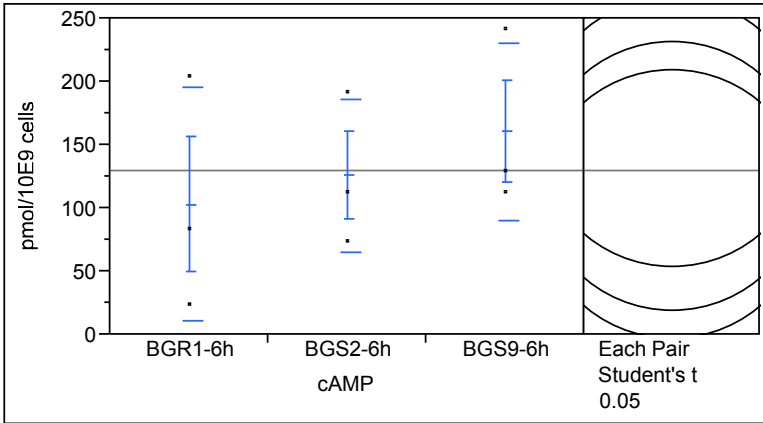
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	4336.67	3093.37	A	
BGS2-6 h (LB)	3	8489.67	3520.74	A	0.1629
BGS9-6 h (LB)	3	8169.67	2953.99	A	0.1926



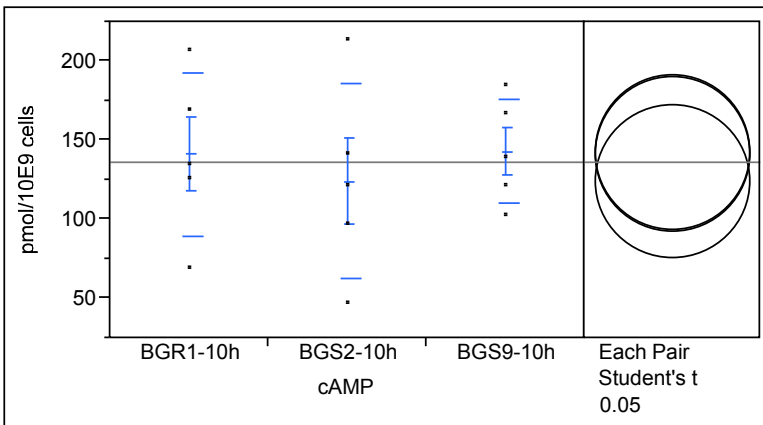
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	3857.0	845.27	B	
BGS2-10 h (LB)	5	19755.8	8721.34	A	0.0019
BGS9-10 h (LB)	5	9636.6	6604.22	B	0.0266



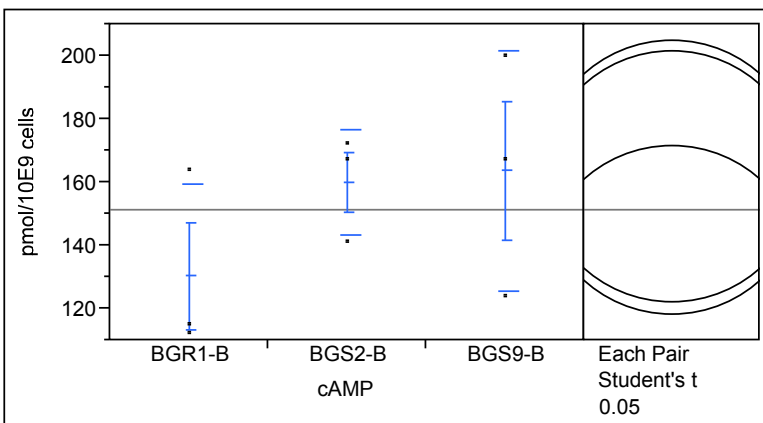
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	6140.0	1890.26	A	
BGS2-10 h (BLB)	3	10059.0	1445.56	A	0.1192
BGS9-10 h (BLB)	3	8975.7	3910.07	A	0.2368



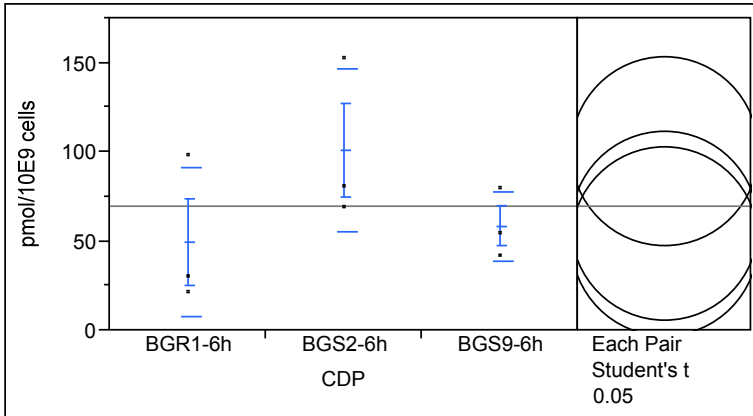
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	103.333	92.1973	A	
BGS2-6 h (LB)	3	126.000	60.5558	A	0.7256
BGS9-6 h (LB)	3	160.667	70.0880	A	0.3880



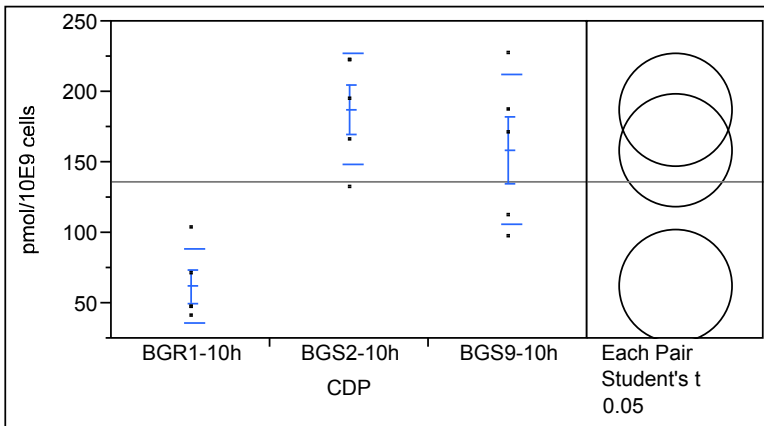
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	141.400	51.5781	A	
BGS2-10 h (LB)	5	124.400	61.4109	A	0.6014
BGS9-10 h (LB)	5	143.200	33.1542	A	0.9556



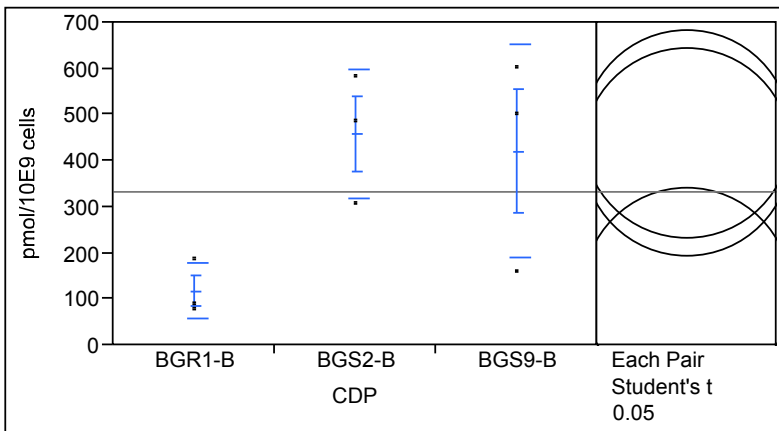
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	130.333	29.1947	A	
BGS2-10 h (BLB)	3	160.000	16.6433	A	0.2618
BGS9-10 h (BLB)	3	163.667	38.1095	A	0.2134



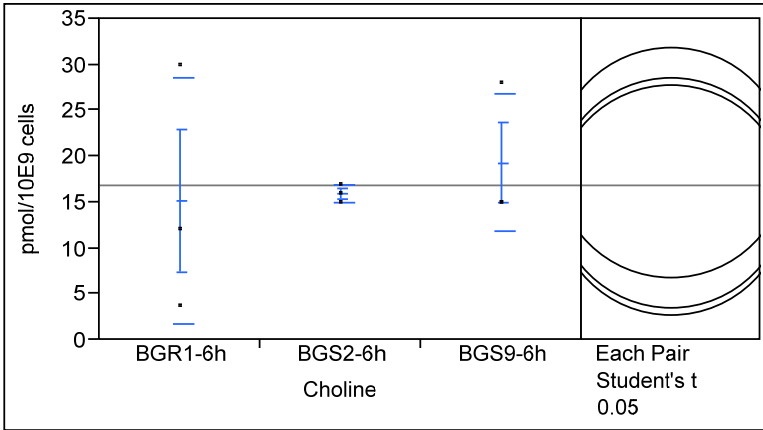
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	49.667	42.0991	A	
BGS2-6 h (LB)	3	101.000	45.4313	A	0.1444
BGS9-6 h (LB)	3	58.667	19.4251	A	0.7786



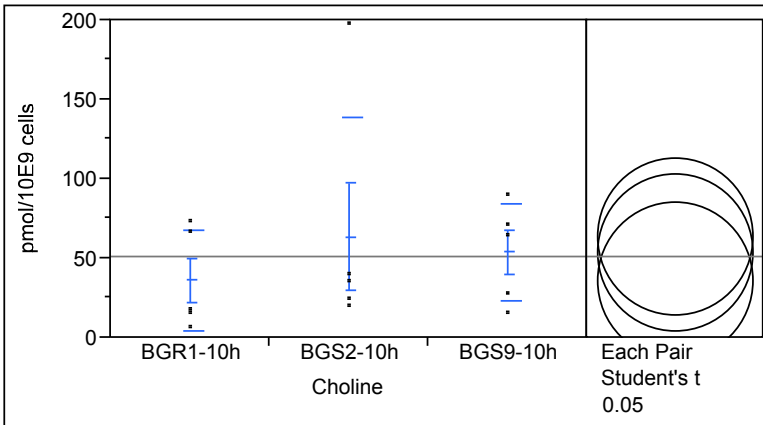
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	62.200	26.0135	B	
BGS2-10 h (LB)	5	187.800	39.1114	A	0.0004
BGS9-10 h (LB)	5	159.200	53.3592	A	0.0028



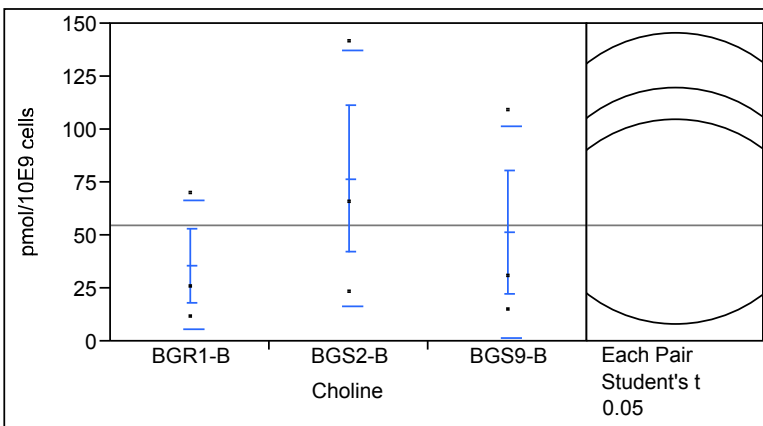
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	118.333	59.769	B	
BGS2-10 h (BLB)	3	459.333	140.272	A	0.0399
BGS9-10 h (BLB)	3	421.333	230.825	AB	0.0592



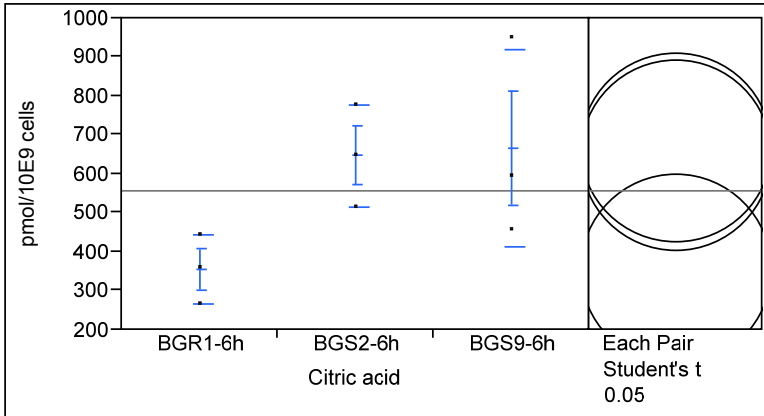
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	15.2333	13.4448	A	
BGS2-6 h (LB)	3	16.0000	1.0000	A	0.9195
BGS9-6 h (LB)	3	19.3333	7.5056	A	0.5934



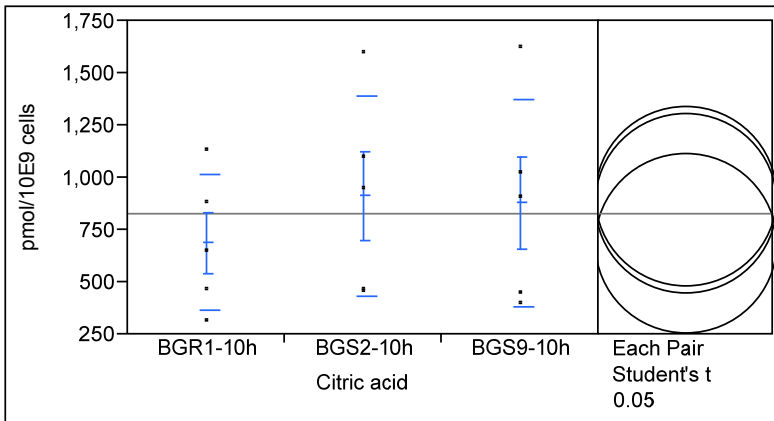
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	36.2000	31.2042	A	
BGS2-10 h (LB)	5	63.6000	75.5831	A	0.4075
BGS9-10 h (LB)	5	54.0000	30.9273	A	0.5874



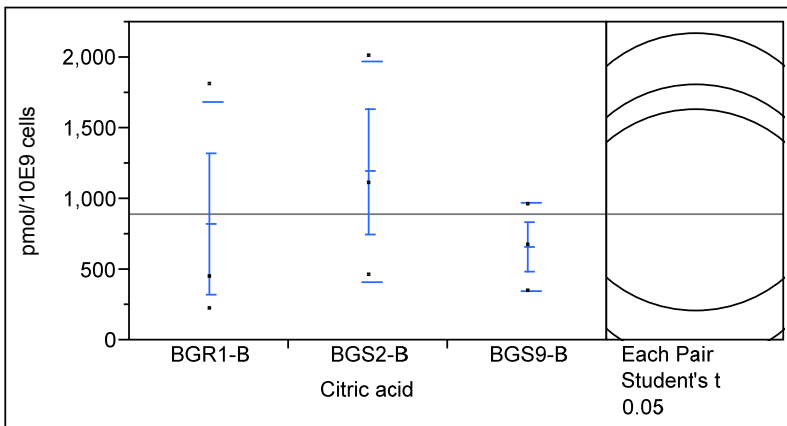
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	36.0000	30.2655	A	
BGS2-10 h (BLB)	3	77.0000	60.2578	A	0.3410
BGS9-10 h (BLB)	3	51.6667	50.2925	A	0.7065



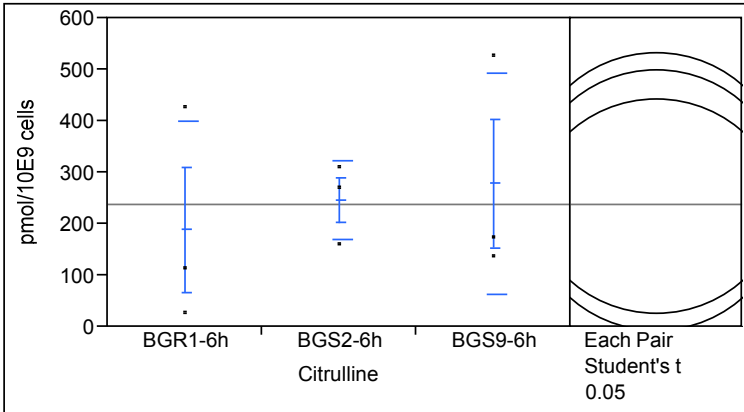
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	355.667	89.047	A	
BGS2-6 h (LB)	3	648.333	131.508	A	0.0830
BGS9-6 h (LB)	3	668.333	253.097	A	0.0682



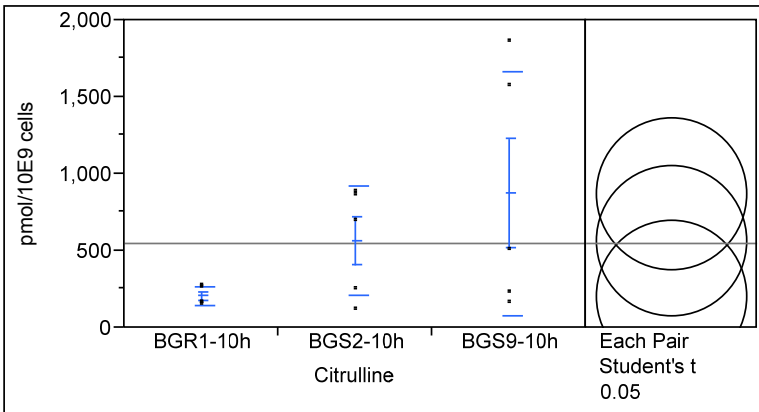
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	689.600	325.646	A	
BGS2-10 h (LB)	5	913.800	480.613	A	0.4370
BGS9-10 h (LB)	5	882.000	495.992	A	0.5033



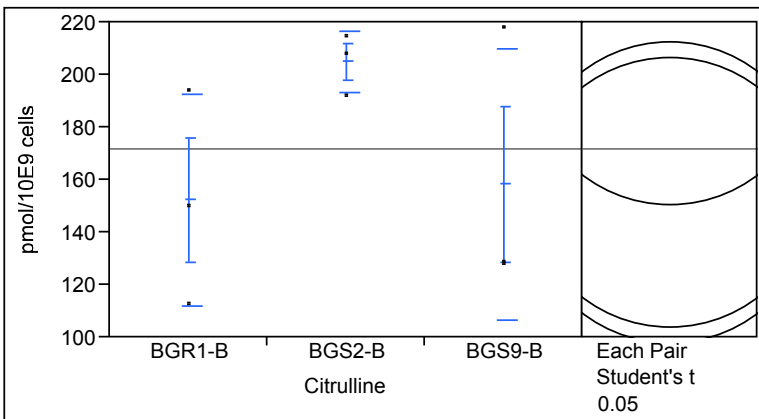
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	827.67	861.038	A	
BGS2-10 h (BLB)	3	1194.67	777.567	A	0.5408
BGS9-10 h (BLB)	3	660.33	309.726	A	0.7775



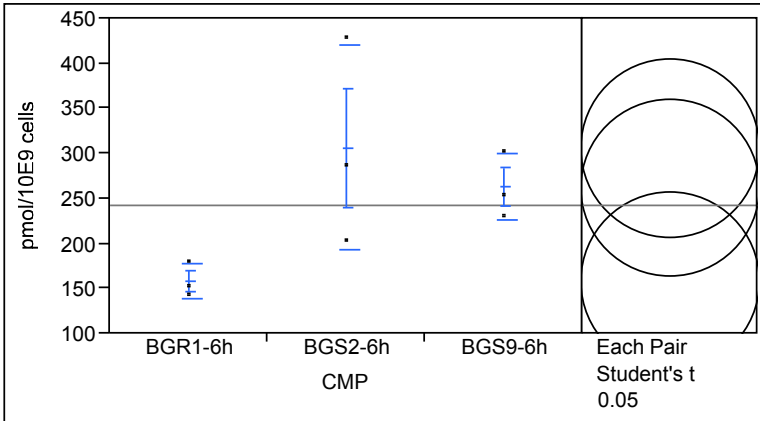
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	189.333	210.372	A	
BGS2-6 h (LB)	3	246.667	77.675	A	0.7089
BGS9-6 h (LB)	3	278.667	214.871	A	0.5641



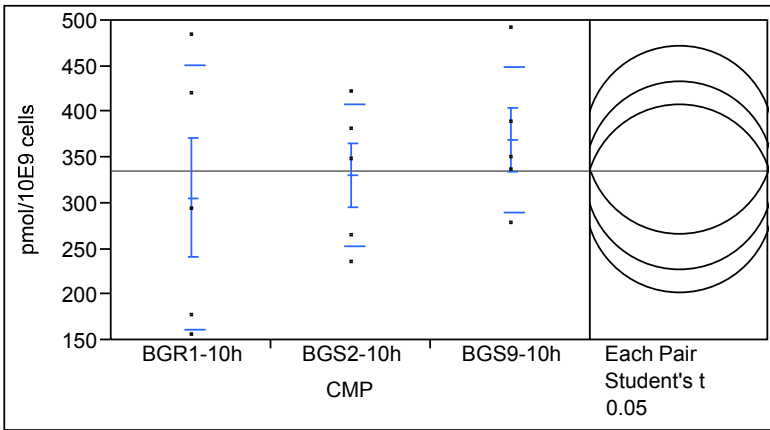
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	206.000	59.996	A	
BGS2-10 h (LB)	5	566.800	359.086	A	0.2797
BGS9-10 h (LB)	5	873.200	793.166	A	0.0582



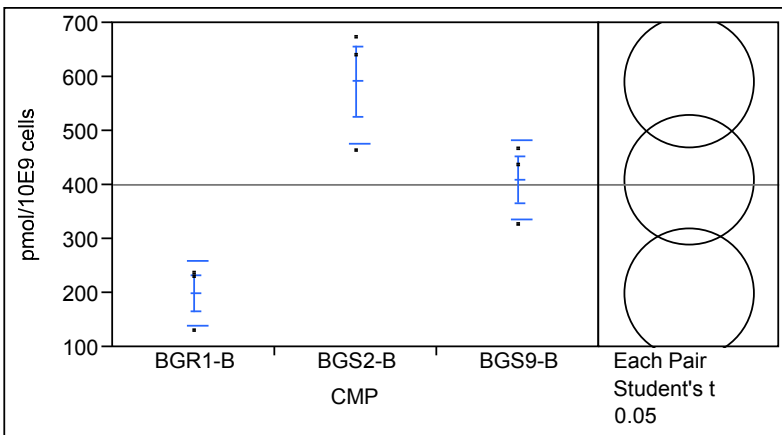
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	152.333	40.5504	A	
BGS2-10 h (BLB)	3	205.000	11.7898	A	0.1451
BGS9-10 h (BLB)	3	158.333	51.6753	A	0.8550



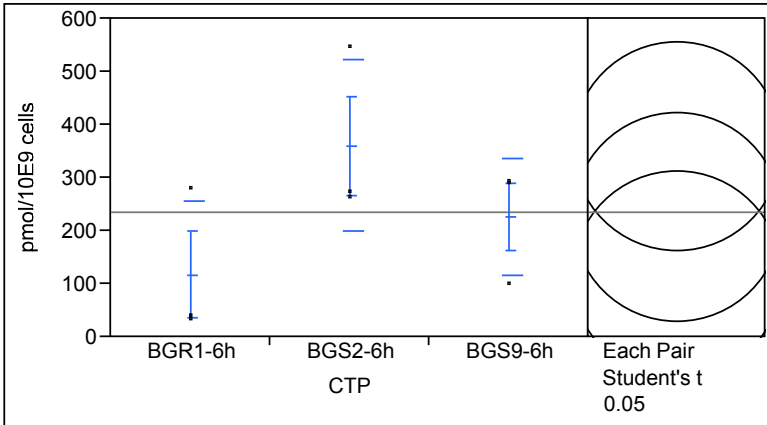
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	158.667	19.140	B	
BGS2-6 h (LB)	3	306.333	113.870	A	0.0415
BGS9-6 h (LB)	3	262.667	36.774	AB	0.1185



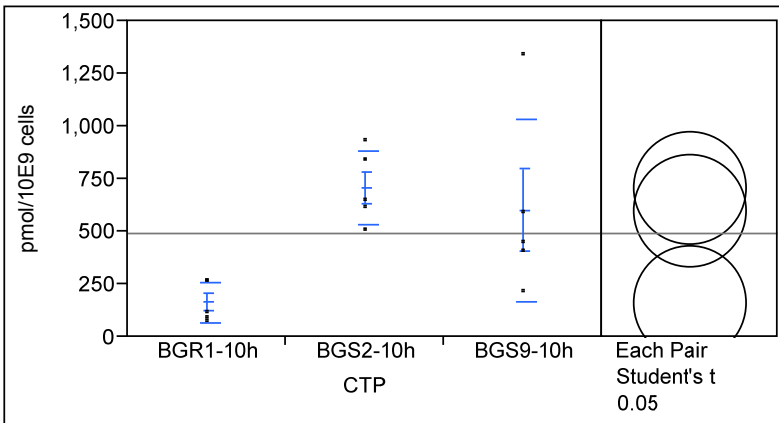
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	306.400	145.118	A	
BGS2-10 h (LB)	5	330.800	78.532	A	0.7213
BGS9-10 h (LB)	5	369.400	79.122	A	0.3644



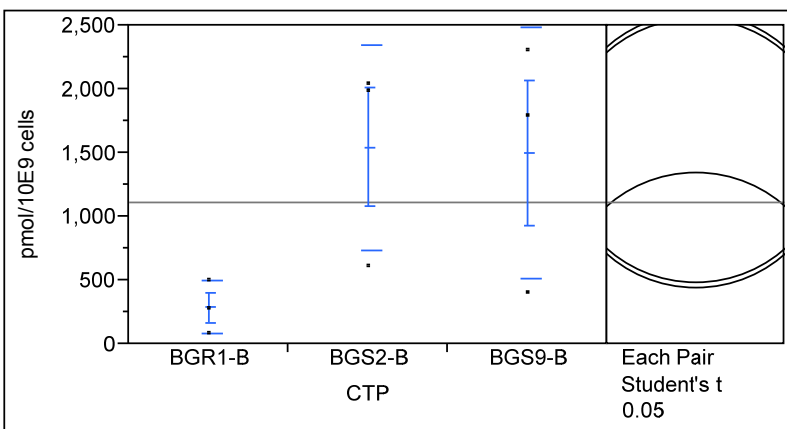
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	199.333	59.282	C	
BGS2-10 h (BLB)	3	592.333	114.221	A	0.0013
BGS9-10 h (BLB)	3	410.333	73.514	B	0.0234



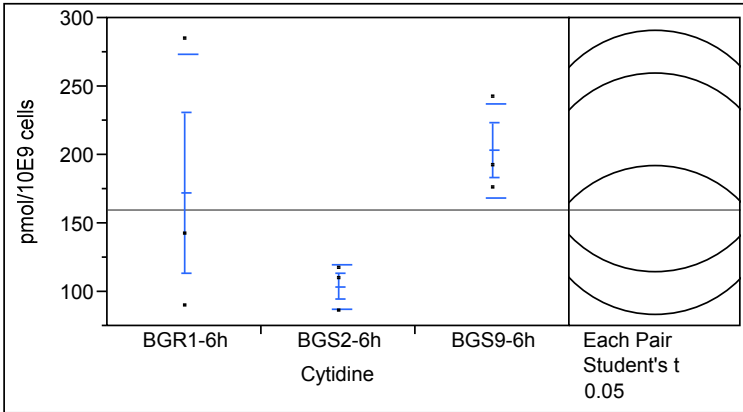
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	117.333	140.930	A	
BGS2-6 h (LB)	3	361.000	161.158	A	0.0756
BGS9-6 h (LB)	3	227.667	110.564	A	0.3689



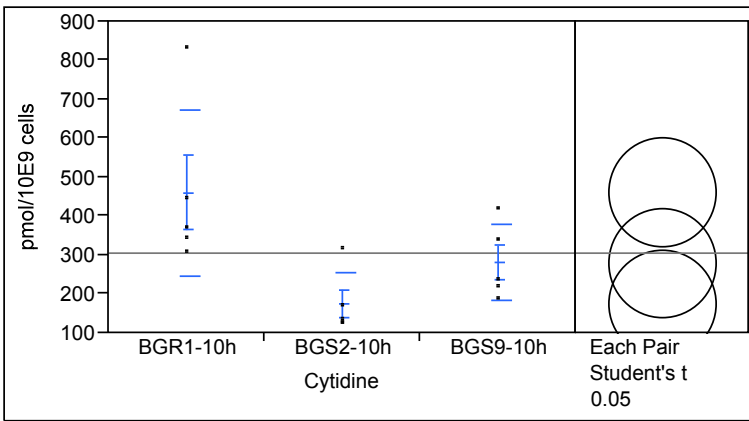
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	164.000	95.310	B	
BGS2-10 h (LB)	5	709.000	173.478	A	0.0088
BGS9-10 h (LB)	5	601.600	435.374	A	0.0276



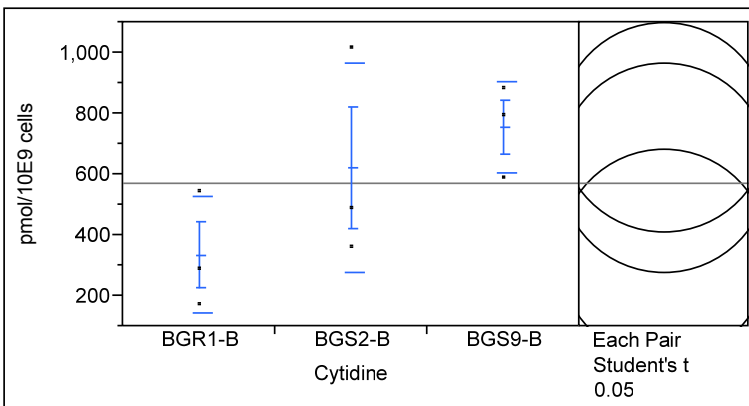
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	290.00	205.183	A	
BGS2-10 h (BLB)	3	1544.33	808.810	A	0.0849
BGS9-10 h (BLB)	3	1501.00	985.097	A	0.0937



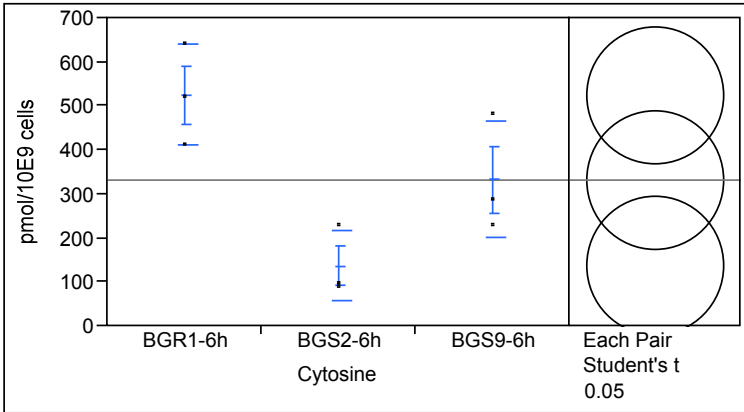
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	172.333	100.977	A	
BGS2-6 h (LB)	3	104.333	16.258	A	0.2298
BGS9-6 h (LB)	3	203.333	34.429	A	0.5646



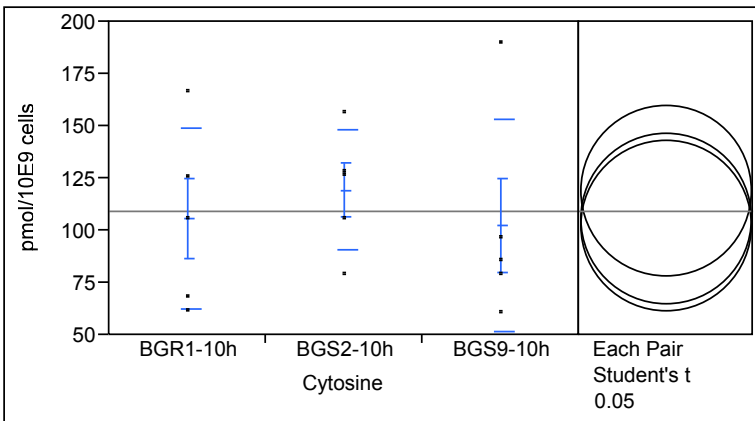
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	460.600	213.996	A	
BGS2-10 h (LB)	5	175.600	80.792	B	0.0085
BGS9-10 h (LB)	5	281.000	97.501	AB	0.0713



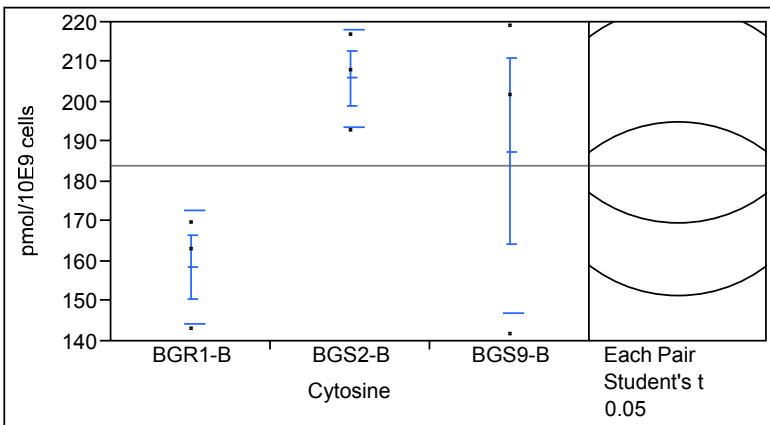
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	335.667	191.014	A	
BGS2-10 h (BLB)	3	622.667	345.839	A	0.2002
BGS9-10 h (BLB)	3	755.000	151.318	A	0.0802



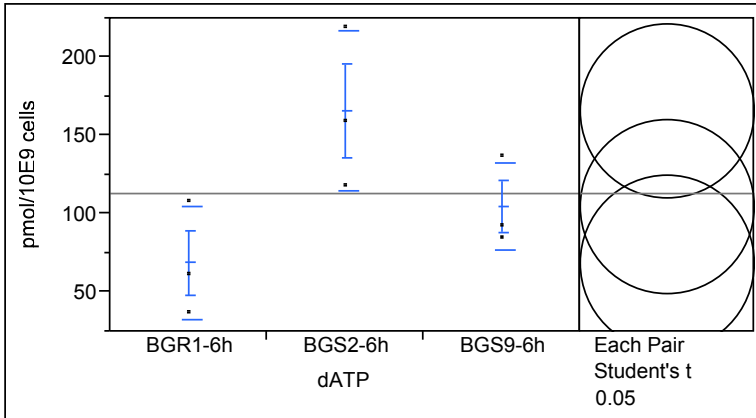
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	526.000	114.053	A	
BGS2-6 h (LB)	3	138.000	78.886	B	0.0051
BGS9-6 h (LB)	3	333.000	131.936	AB	0.0763



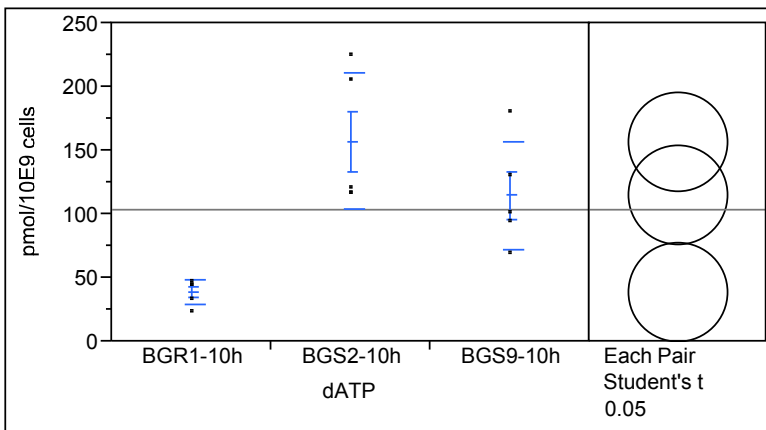
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	105.800	43.3036	A	
BGS2-10 h (LB)	5	119.400	28.9707	A	0.6173
BGS9-10 h (LB)	5	102.600	50.5796	A	0.9059



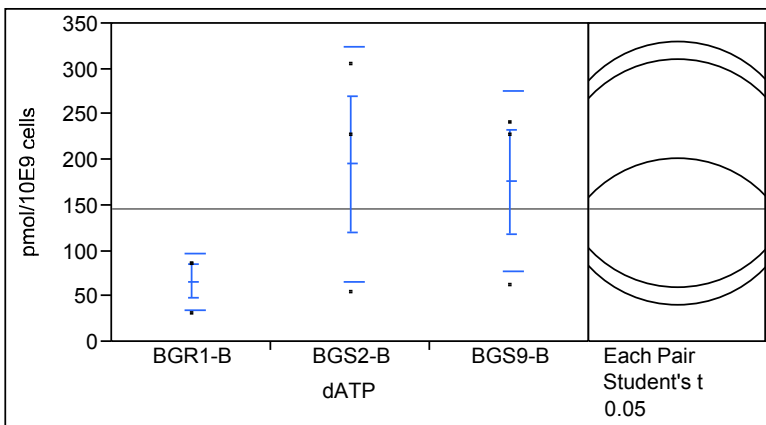
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	158.667	14.0119	A	
BGS2-10 h (BLB)	3	206.000	12.1244	A	0.0648
BGS9-10 h (BLB)	3	187.667	40.4516	A	0.2160



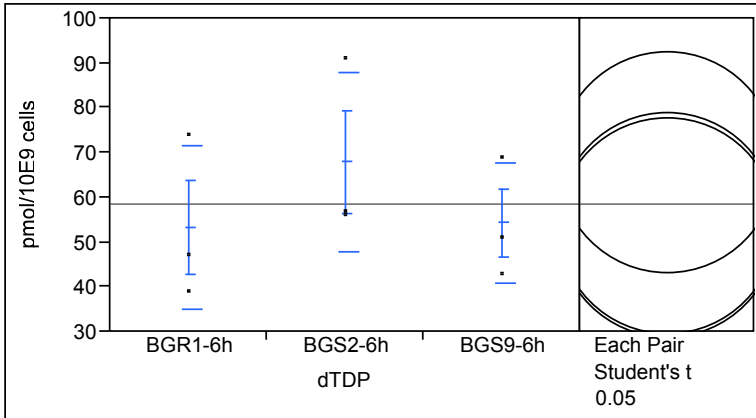
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	69.000	36.0139	B	
BGS2-6 h (LB)	3	166.000	51.2640	A	0.0241
BGS9-6 h (LB)	3	105.000	28.0000	AB	0.3084



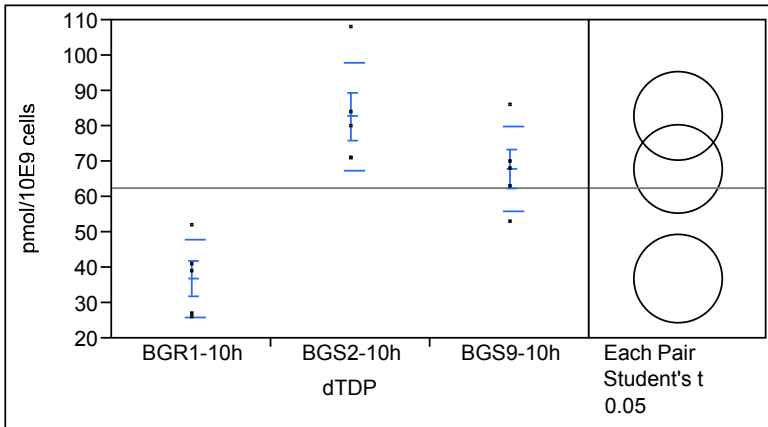
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	38.800	9.6799	B	
BGS2-10 h (LB)	5	157.000	53.4416	A	0.0005
BGS9-10 h (LB)	5	115.000	42.5265	A	0.0106



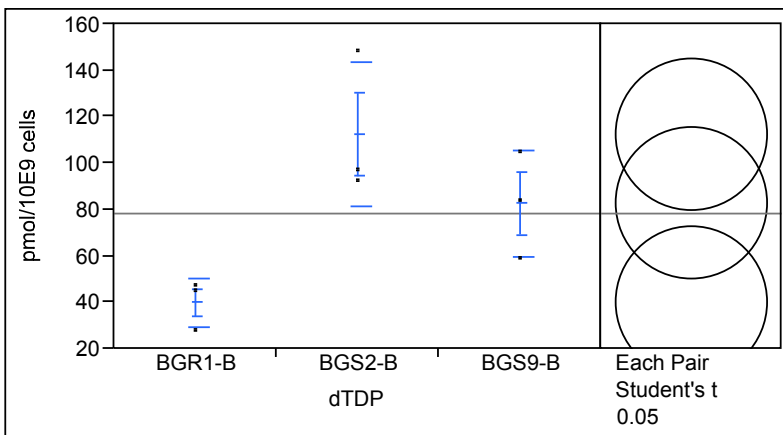
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	67.000	31.177	A	
BGS2-10 h (BLB)	3	195.667	128.586	A	0.1504
BGS9-10 h (BLB)	3	176.667	99.551	A	0.2096



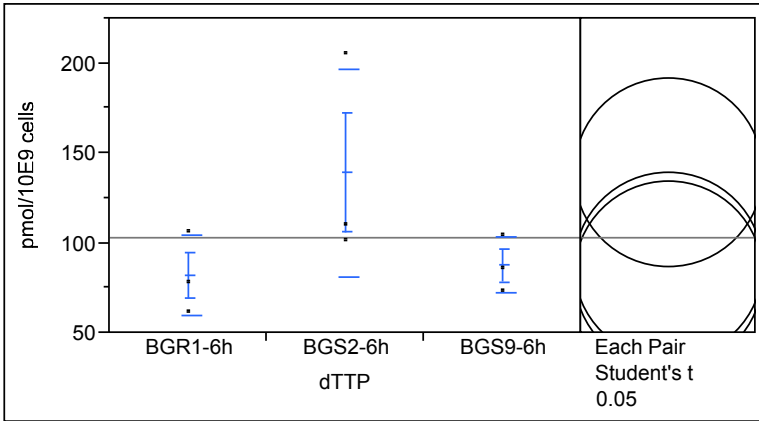
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	53.3333	18.3394	A	
BGS2-6 h (LB)	3	68.0000	19.9249	A	0.3423
BGS9-6 h (LB)	3	54.3333	13.3167	A	0.9462



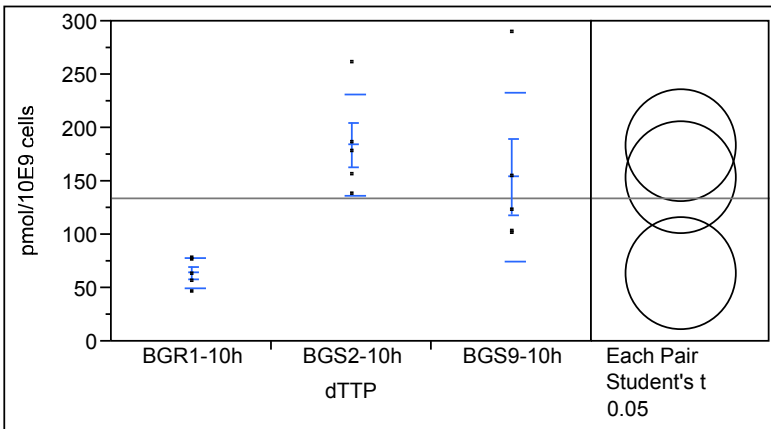
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	37.0000	10.7935	B	
BGS2-10 h (LB)	5	82.8000	15.1888	A	0.0001
BGS9-10 h (LB)	5	68.0000	12.0208	A	0.0024



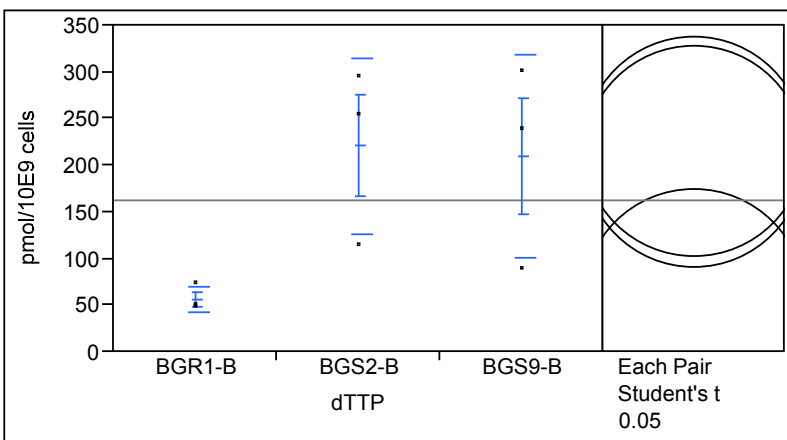
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	40.000	10.4403	B	
BGS2-10 h (BLB)	3	112.333	30.9892	A	0.0086
BGS9-10 h (BLB)	3	82.667	23.0290	AB	0.0643



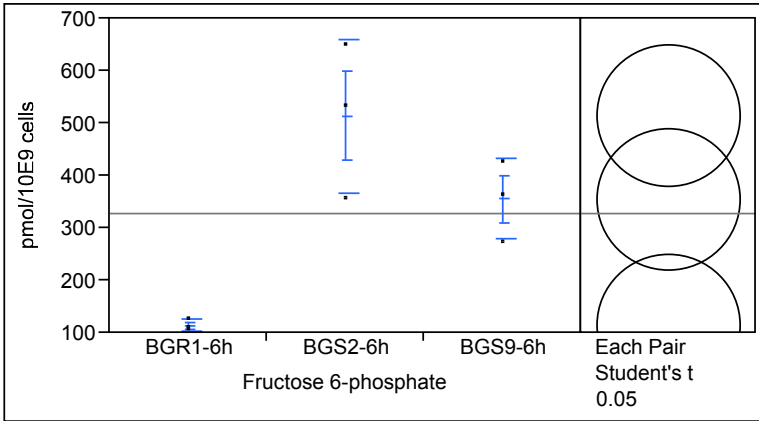
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	82.000	22.2711	A	
BGS2-6 h (LB)	3	139.333	57.8734	A	0.1058
BGS9-6 h (LB)	3	87.667	15.5671	A	0.8571



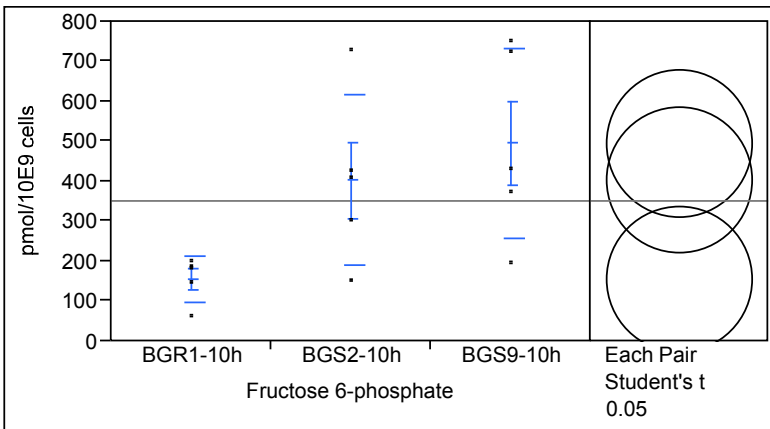
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	64.400	13.8492	B	
BGS2-10 h (LB)	5	184.200	47.4679	A	0.0042
BGS9-10 h (LB)	5	154.400	78.8467	A	0.0212



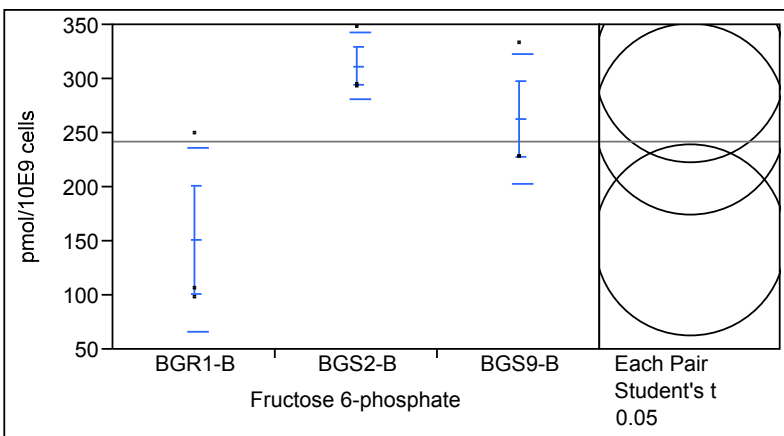
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	57.000	13.892	A	
BGS2-10 h (BLB)	3	221.333	94.342	A	0.0523
BGS9-10 h (BLB)	3	210.000	108.448	A	0.0657



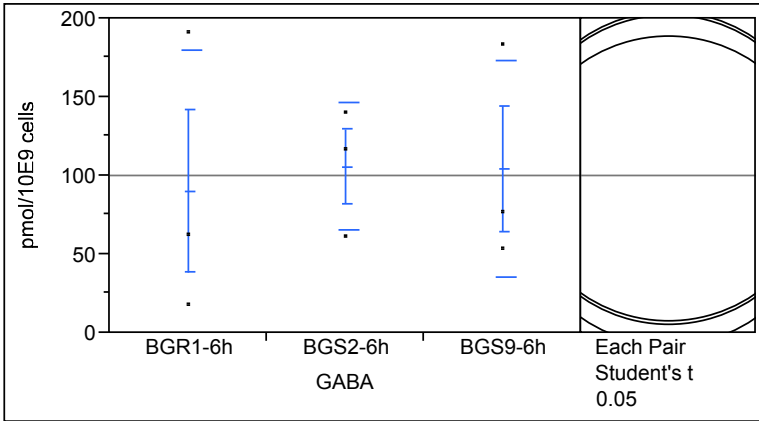
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	114.667	11.590	B	
BGS2-6 h (LB)	3	514.000	146.632	A	0.0022
BGS9-6 h (LB)	3	355.333	76.957	A	0.0218



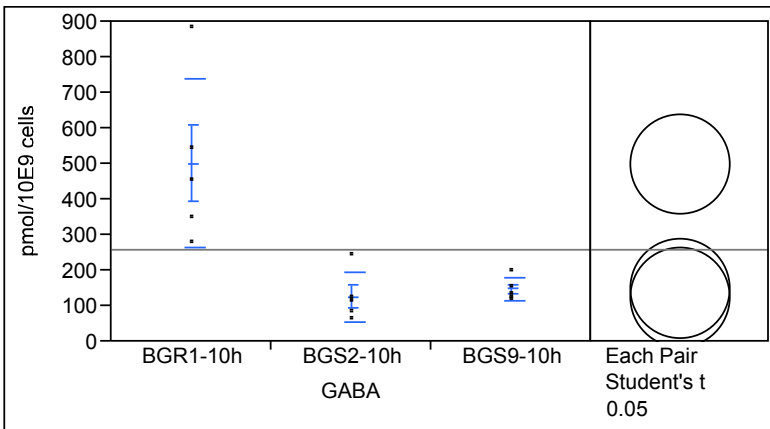
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	155.600	55.653	B	
BGS2-10 h (LB)	5	403.600	213.036	AB	0.0582
BGS9-10 h (LB)	5	495.600	238.297	A	0.0141



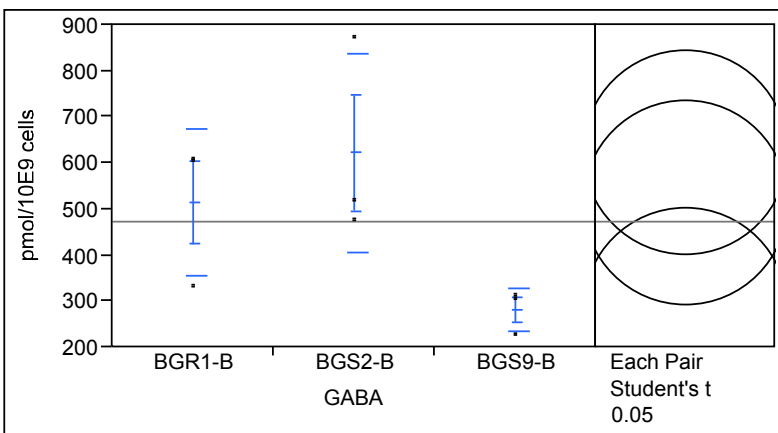
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	151.667	85.2311	B	
BGS2-10 h (BLB)	3	312.333	30.8923	A	0.0203
BGS9-10 h (BLB)	3	263.333	60.3352	AB	0.0725



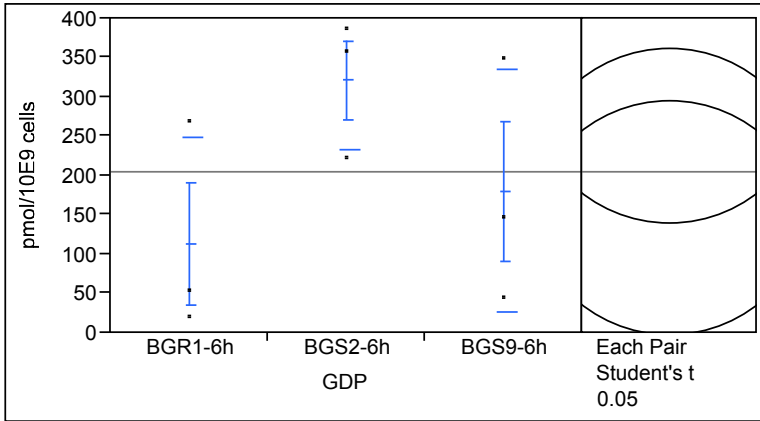
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	90.333	89.9129	A	
BGS2-6 h (LB)	3	106.000	40.6325	A	0.7920
BGS9-6 h (LB)	3	104.333	69.1761	A	0.8135



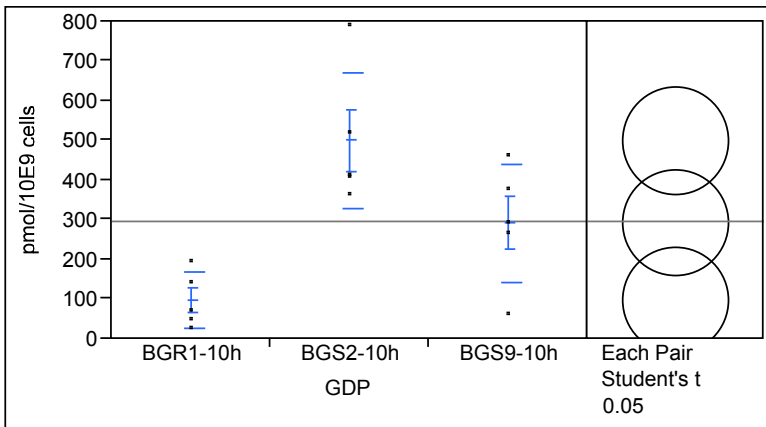
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	501.800	236.875	A	
BGS2-10 h (LB)	5	127.000	70.168	B	0.0014
BGS9-10 h (LB)	5	147.800	32.112	B	0.0021



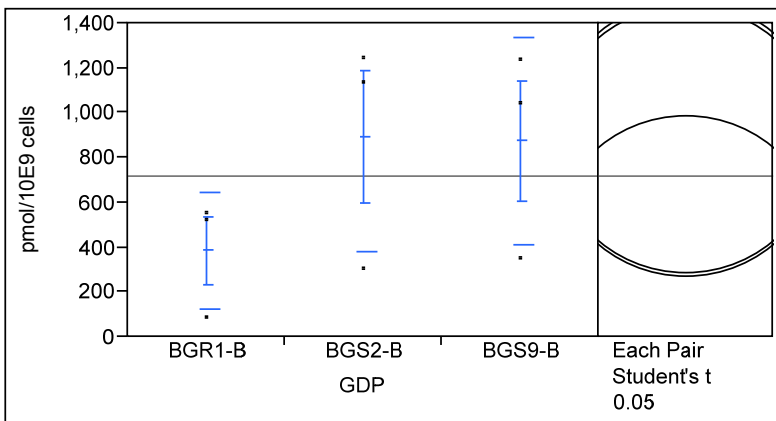
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	515.000	157.645	AB	
BGS2-10 h (BLB)	3	622.333	216.278	A	0.4340
BGS9-10 h (BLB)	3	282.333	46.361	B	0.1191



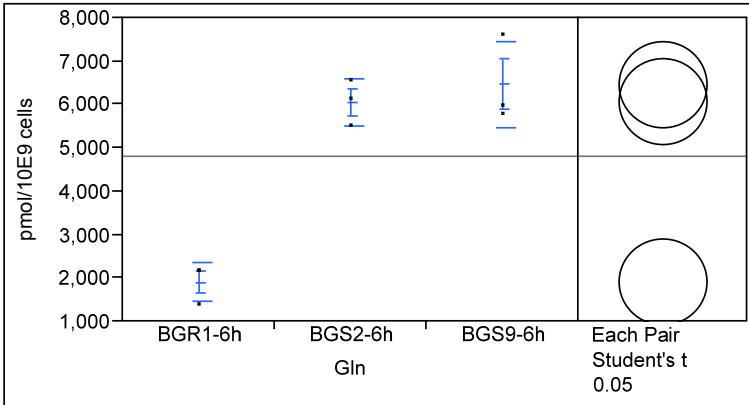
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	113.333	135.020	A	
BGS2-6 h (LB)	3	321.667	87.523	A	0.0950
BGS9-6 h (LB)	3	180.333	154.717	A	0.5478



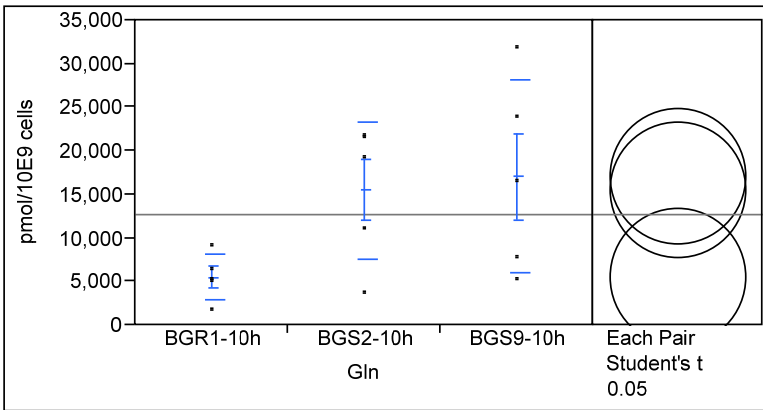
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	96.800	70.439	C	
BGS2-10 h (LB)	5	500.000	171.483	A	0.0006
BGS9-10 h (LB)	5	292.600	149.412	B	0.0438



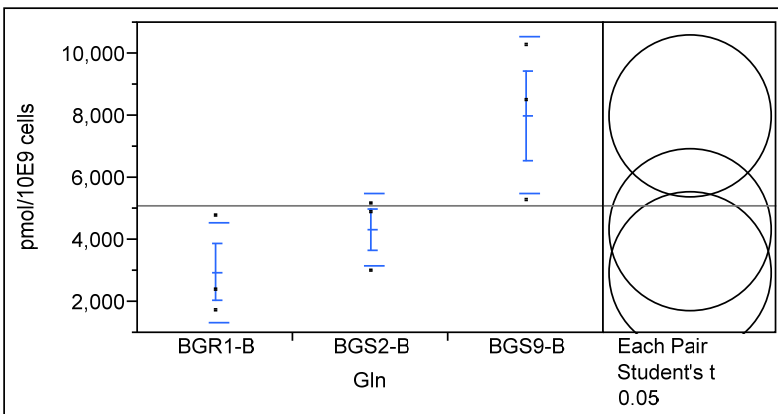
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	385.333	258.771	A	
BGS2-10 h (BLB)	3	894.333	515.758	A	0.1949
BGS9-10 h (BLB)	3	875.667	463.455	A	0.2095



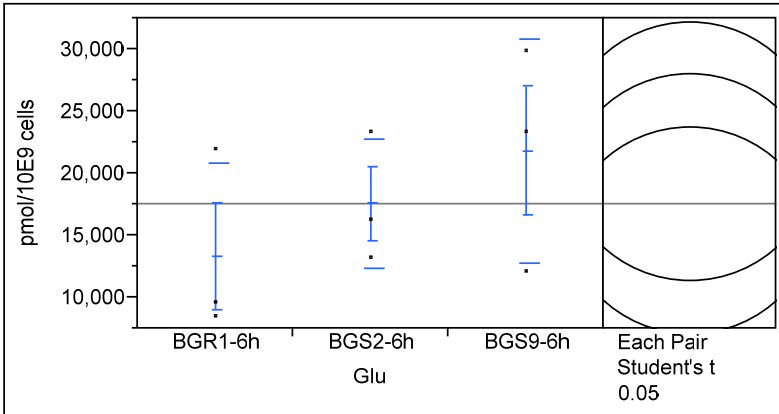
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	1912.00	436.55	B	
BGS2-6 h (LB)	3	6065.00	534.85	A	0.0004
BGS9-6 h (LB)	3	6464.67	1009.13	A	0.0002



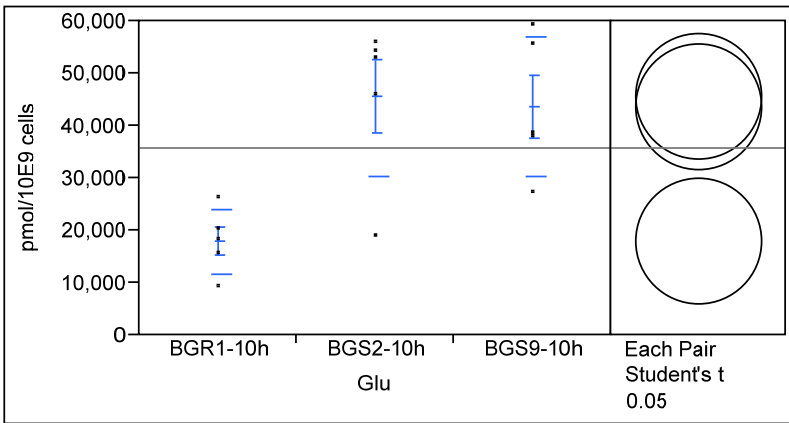
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	5534.2	2702.9	B	
BGS2-10 h (LB)	5	15513.8	7912.6	AB	0.0728
BGS9-10 h (LB)	5	17082.2	11102.5	A	0.0420



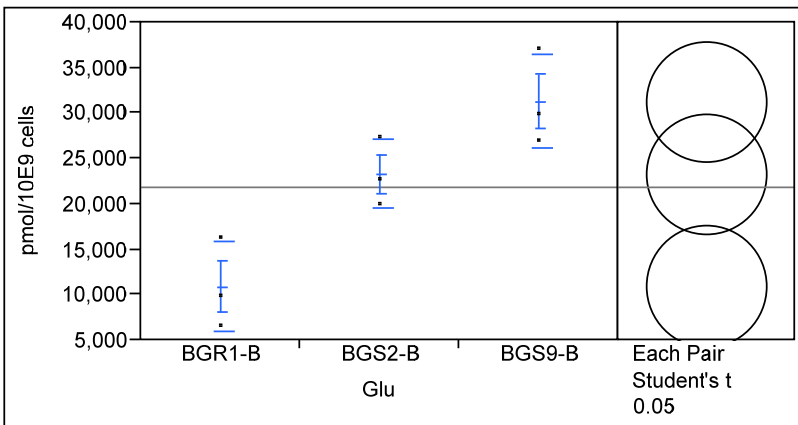
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	2954.00	1597.58	B	
BGS2-10 h (BLB)	3	4352.67	1169.22	AB	0.3910
BGS9-10 h (BLB)	3	8001.67	2527.20	A	0.0157



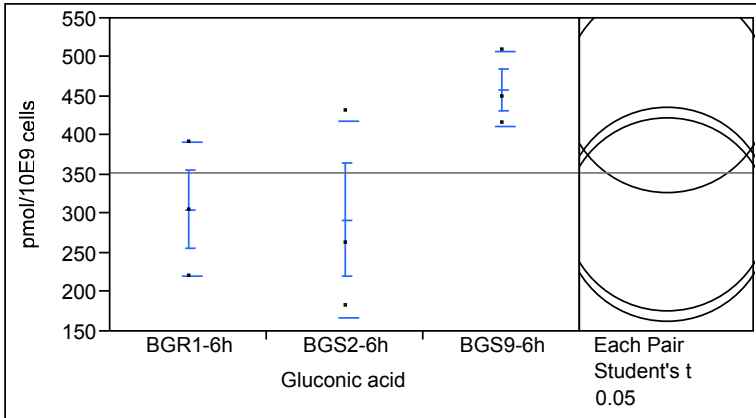
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	13340.7	7454.98	A	
BGS2-6 h (LB)	3	17579.7	5189.87	A	0.5085
BGS9-6 h (LB)	3	21812.3	9010.66	A	0.2097



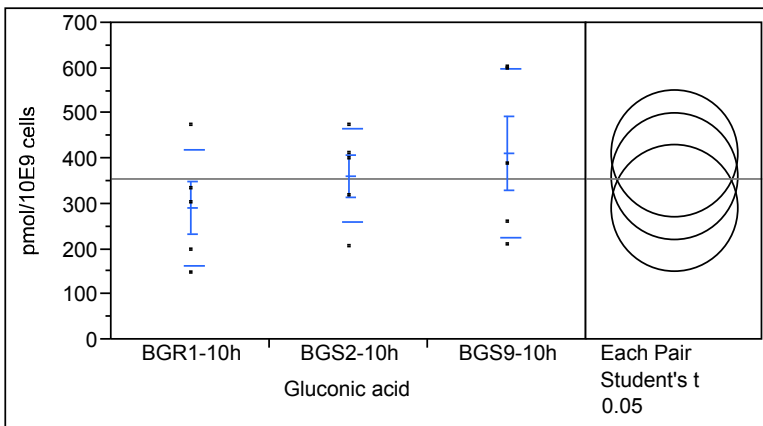
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	17941.8	6187.3	B	
BGS2-10 h (LB)	5	45655.8	15332.8	A	0.0038
BGS9-10 h (LB)	5	43779.4	13353.6	A	0.0060



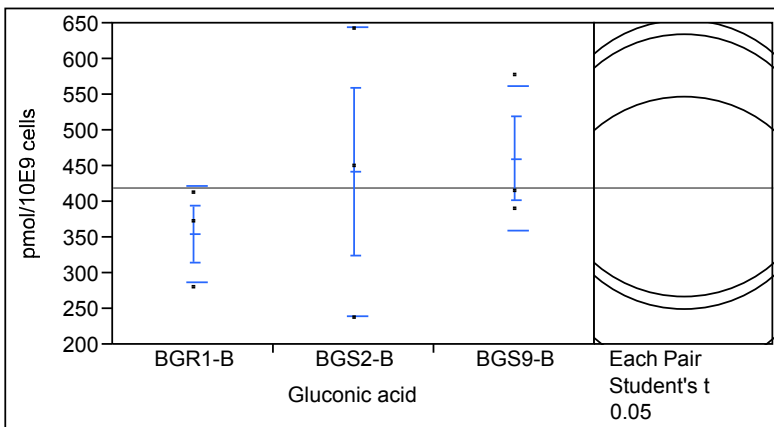
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	10926.7	5021.51	B	
BGS2-10 h (BLB)	3	23349.7	3724.38	A	0.0175
BGS9-10 h (BLB)	3	31296.3	5168.15	A	0.0018



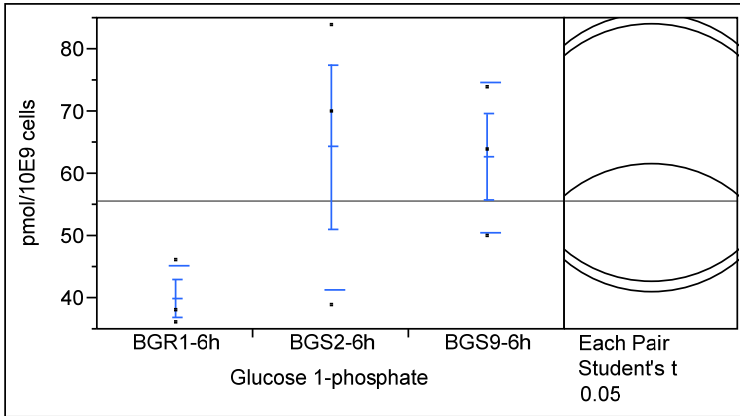
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	306.333	85.500	A	
BGS2-6 h (LB)	3	293.333	126.575	A	0.8689
BGS9-6 h (LB)	3	459.000	47.791	A	0.0895



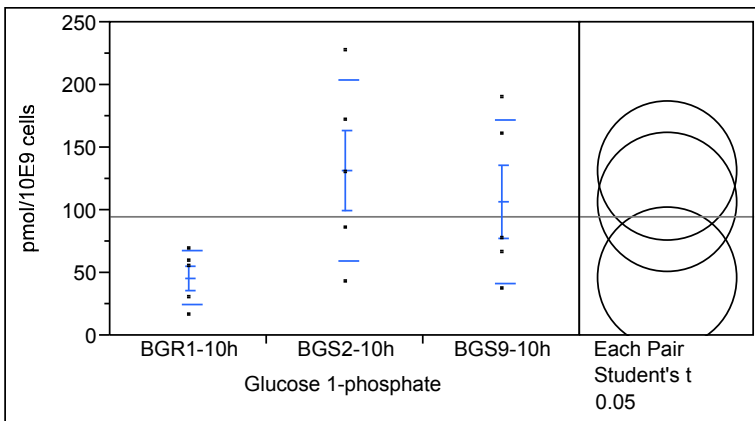
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	292.000	128.378	A	
BGS2-10 h (LB)	5	362.200	102.634	A	0.4521
BGS9-10 h (LB)	5	412.200	184.848	A	0.2080



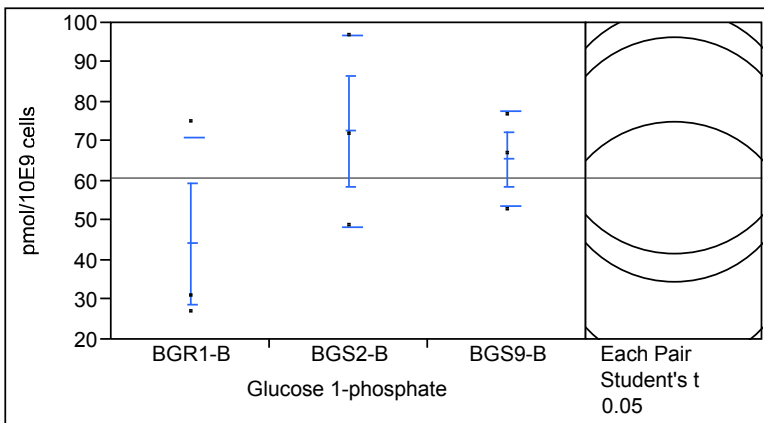
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	355.000	67.134	A	
BGS2-10 h (BLB)	3	442.667	202.574	A	0.4616
BGS9-10 h (BLB)	3	461.000	101.975	A	0.3785



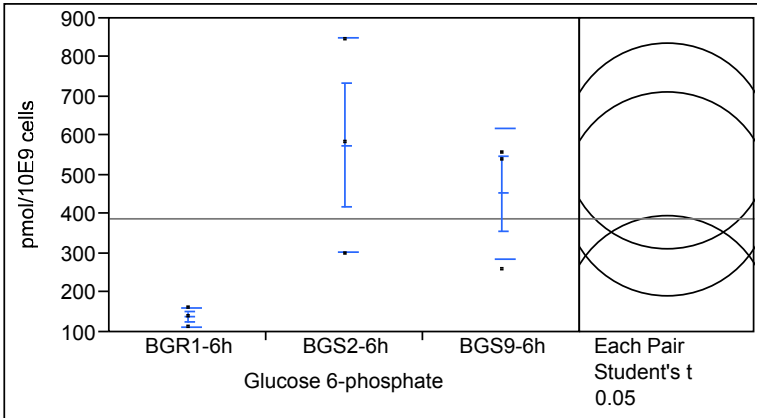
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	40.0000	5.2915	A	
BGS2-6 h (LB)	3	64.3333	23.0290	A	0.0996
BGS9-6 h (LB)	3	62.6667	12.0554	A	0.1198



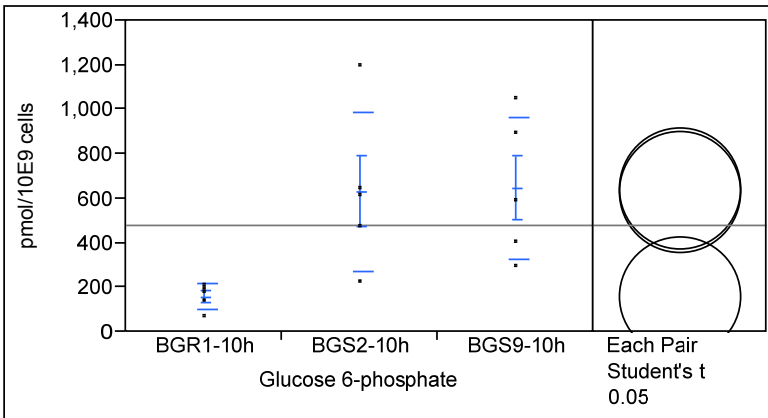
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	46.200	21.8105	B	
BGS2-10 h (LB)	5	131.800	72.2094	A	0.0366
BGS9-10 h (LB)	5	106.800	65.2051	AB	0.1219



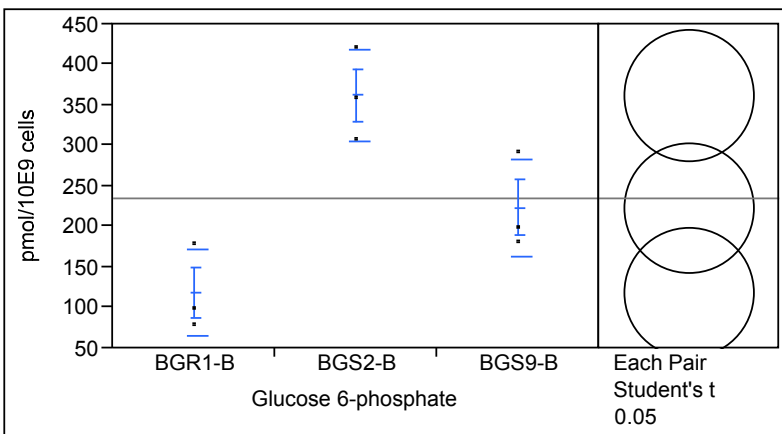
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	44.3333	26.6333	A	
BGS2-10 h (BLB)	3	72.6667	24.0069	A	0.1632
BGS9-10 h (BLB)	3	65.6667	12.0554	A	0.2767



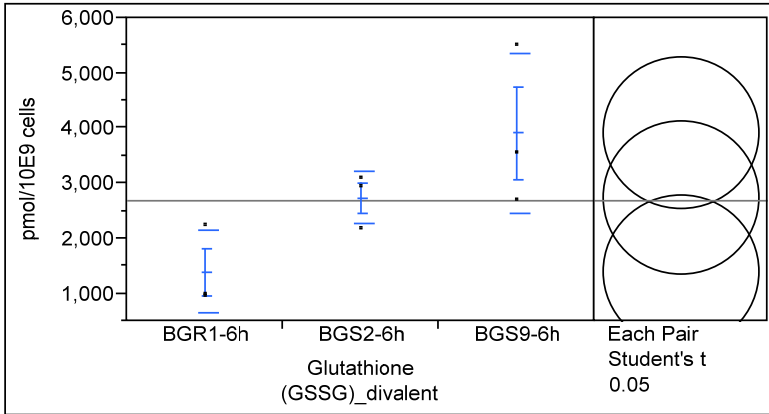
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	138.000	23.000	B	
BGS2-6 h (LB)	3	576.333	272.581	A	0.0272
BGS9-6 h (LB)	3	454.000	166.469	AB	0.0812



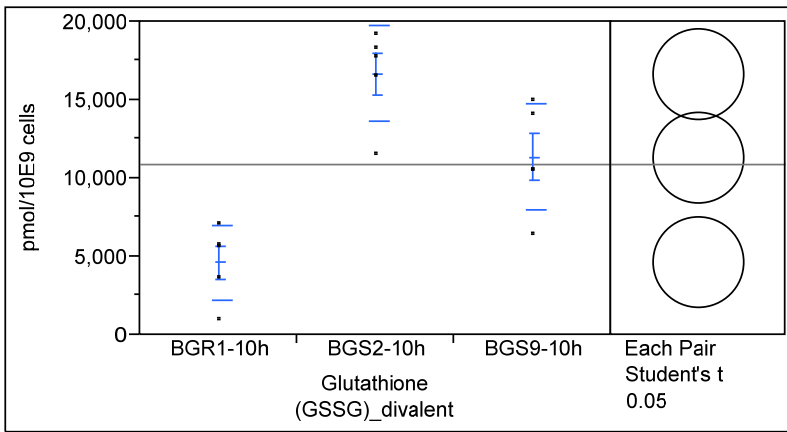
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	159.400	55.662	B	
BGS2-10 h (LB)	5	632.800	356.830	A	0.0197
BGS9-10 h (LB)	5	646.600	319.587	A	0.0171



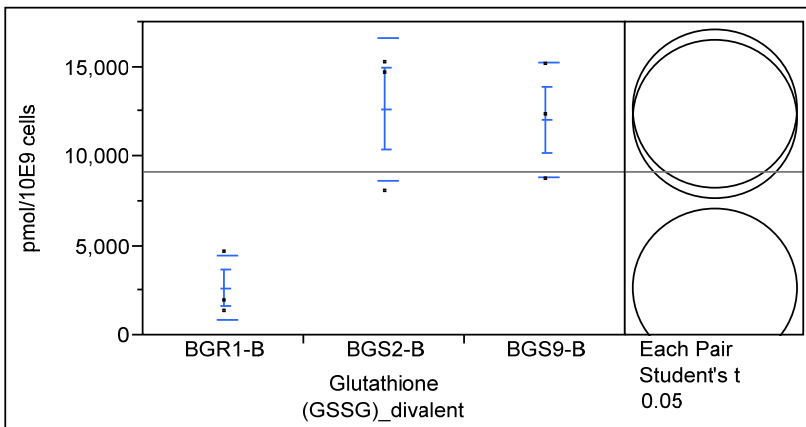
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	119.333	53.4821	B	
BGS2-10 h (BLB)	3	362.333	57.0731	A	0.0019
BGS9-10 h (BLB)	3	224.000	59.5735	B	0.0647



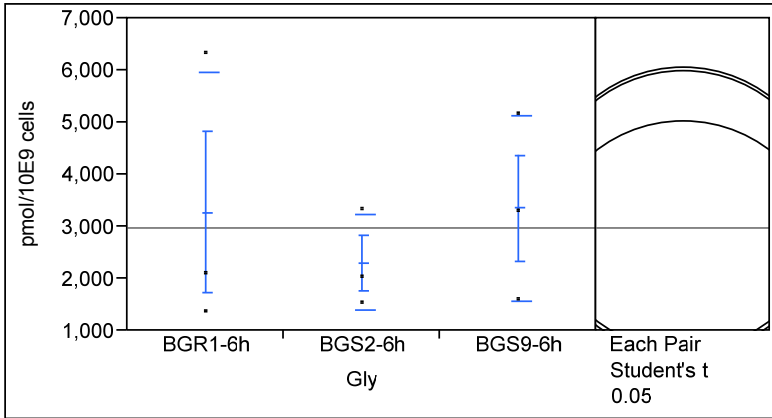
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	1399.33	739.31	B	
BGS2-6 h (LB)	3	2741.67	479.18	AB	0.1439
BGS9-6 h (LB)	3	3917.67	1447.79	A	0.0198



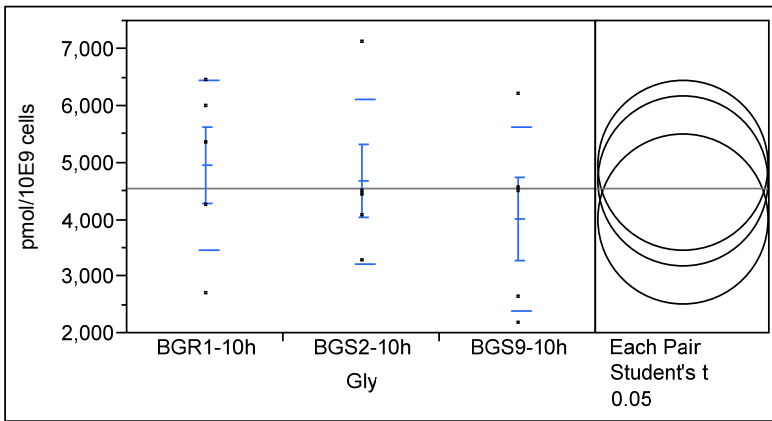
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	4629.8	2379.85	C	
BGS2-10 h (LB)	5	16696.2	3034.30	A	<.0001
BGS9-10 h (LB)	5	11361.2	3396.58	B	0.0037



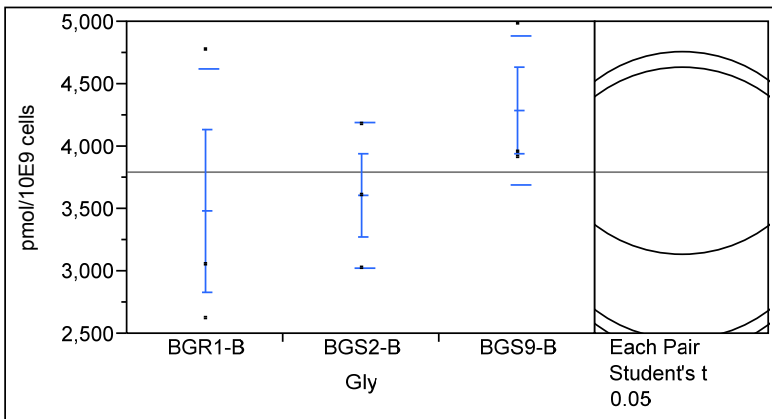
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	2667.7	1787.57	B	
BGS2-10 h (BLB)	3	12677.7	3986.66	A	0.0078
BGS9-10 h (BLB)	3	12091.7	3213.69	A	0.0103



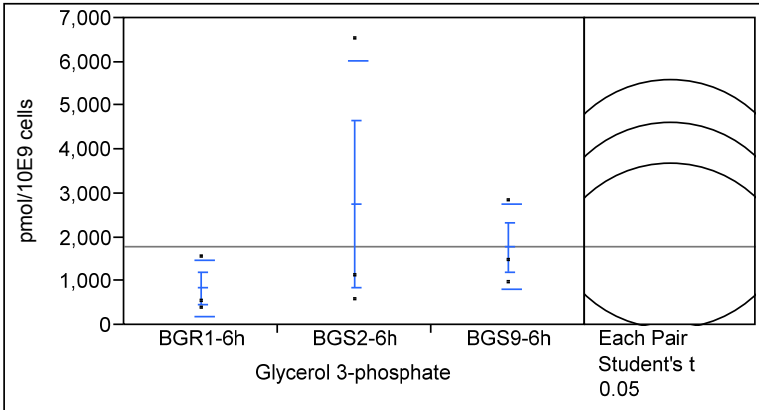
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	3274.67	2677.26	A	
BGS2-6 h (LB)	3	2302.33	916.64	A	0.5598
BGS9-6 h (LB)	3	3355.00	1777.41	A	0.9610



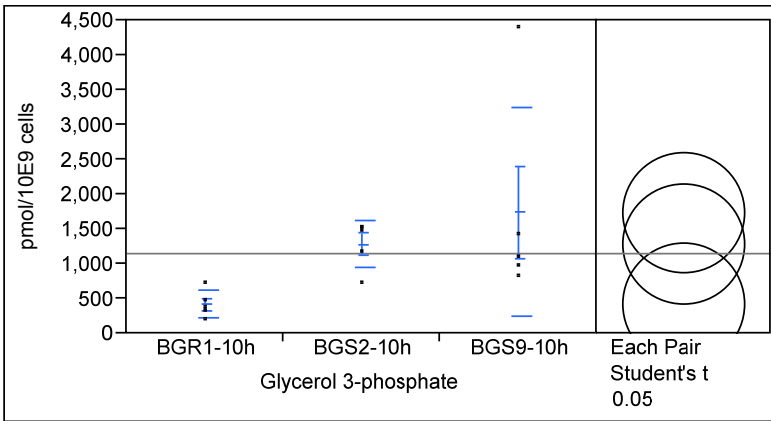
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	4958.60	1503.81	A	
BGS2-10 h (LB)	5	4684.40	1449.01	A	0.7814
BGS9-10 h (LB)	5	4021.60	1624.59	A	0.3513



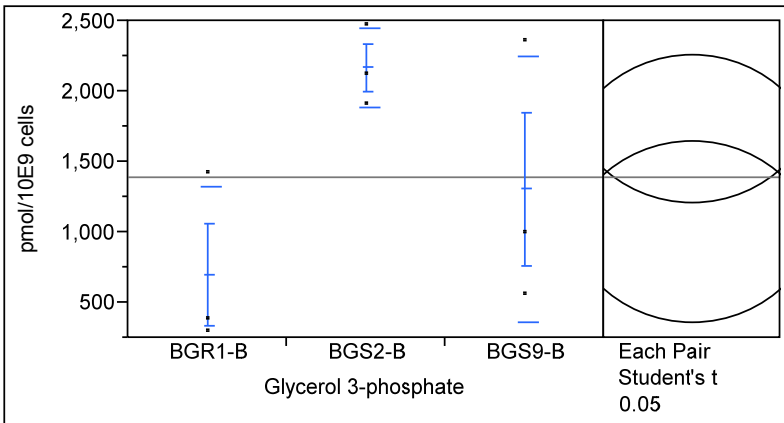
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	3489.00	1133.52	A	
BGS2-10 h (BLB)	3	3611.33	578.01	A	0.8599
BGS9-10 h (BLB)	3	4292.00	603.12	A	0.2719



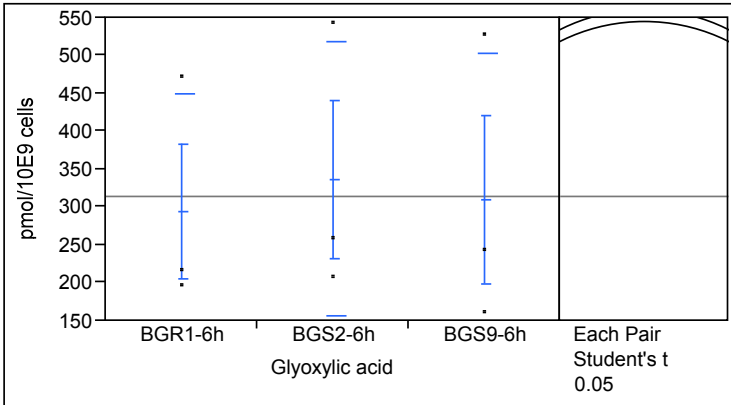
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	837.00	629.75	A	
BGS2-6 h (LB)	3	2752.33	3293.35	A	0.2886
BGS9-6 h (LB)	3	1775.67	969.86	A	0.5891



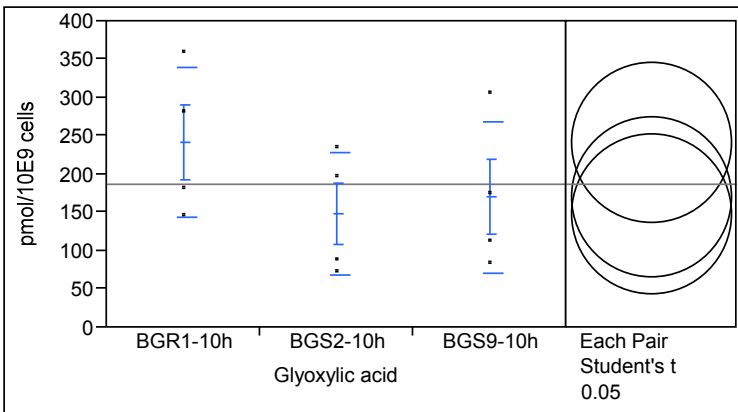
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	418.20	194.44	B	
BGS2-10 h (LB)	5	1286.40	340.59	AB	0.1510
BGS9-10 h (LB)	5	1740.20	1499.74	A	0.0377



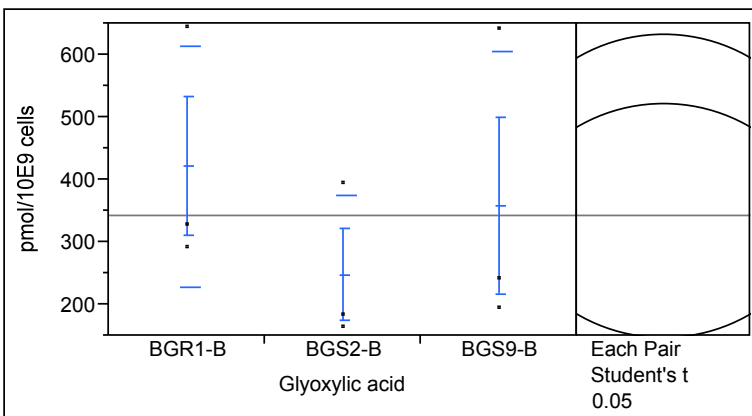
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	698.33	625.665	B	
BGS2-10 h (BLB)	3	2169.00	285.790	A	0.0368
BGS9-10 h (BLB)	3	1309.00	941.806	AB	0.3092



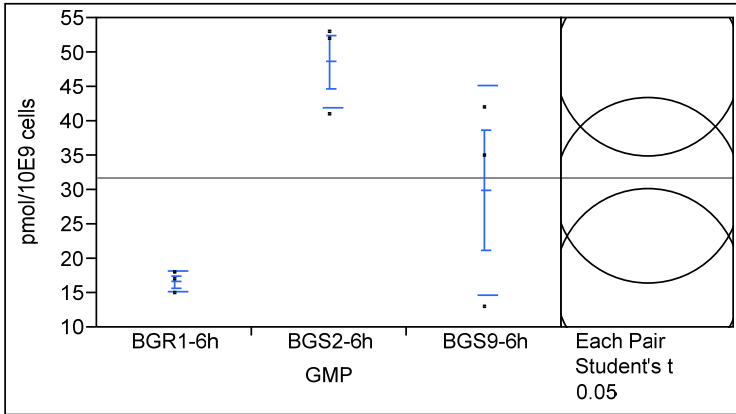
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	295.000	154.477	A	
BGS2-6 h (LB)	3	337.333	180.857	A	0.7791
BGS9-6 h (LB)	3	310.667	192.630	A	0.9171



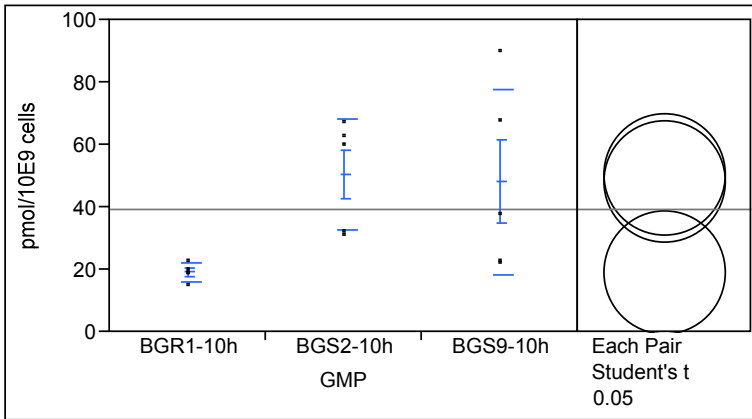
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	4	242.750	97.5957	A	
BGS2-10 h (LB)	4	149.000	80.3036	A	0.1858
BGS9-10 h (LB)	4	170.500	98.5985	A	0.2982



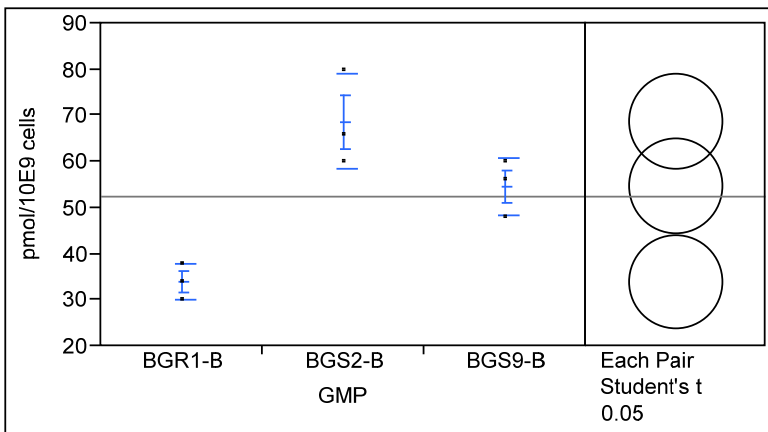
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	421.667	193.340	A	
BGS2-10 h (BLB)	3	247.667	127.084	A	0.3154
BGS9-10 h (BLB)	3	359.333	245.060	A	0.7084



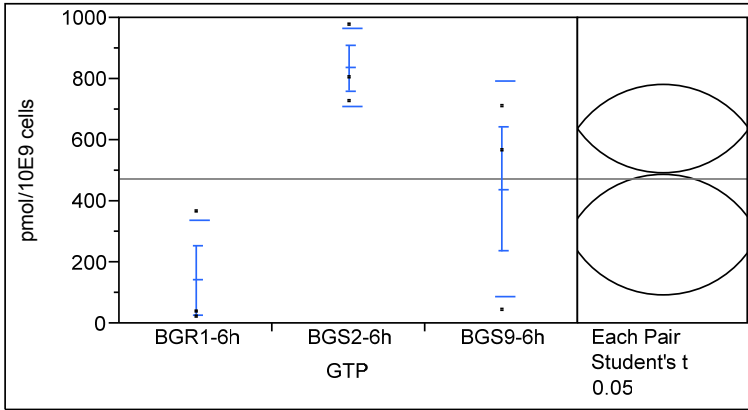
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	16.6667	1.5275	B	
BGS2-6 h (LB)	3	48.6667	6.6583	A	0.0064
BGS9-6 h (LB)	3	30.0000	15.1327	AB	0.1394



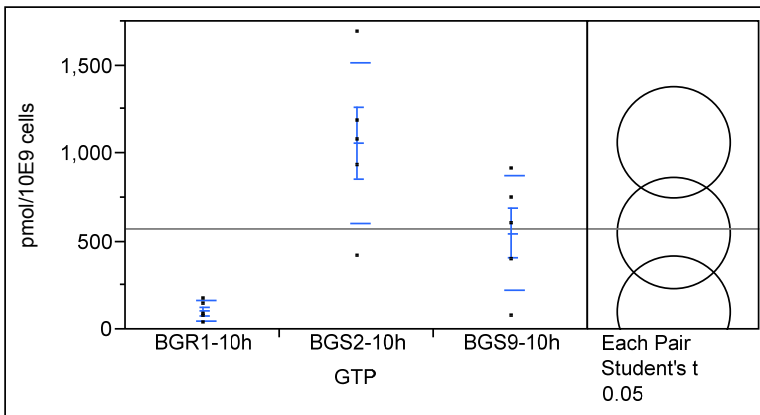
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	19.2000	2.8636	B	
BGS2-10 h (LB)	5	50.6000	17.6153	A	0.0294
BGS9-10 h (LB)	5	48.2000	29.8530	A	0.0414



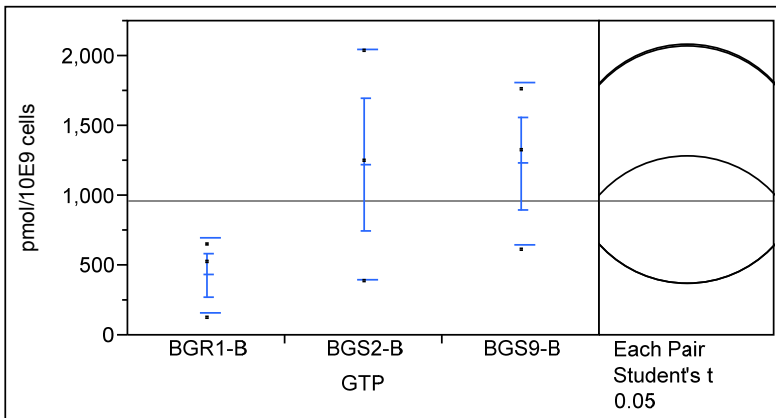
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	34.0000	4.0000	B	
BGS2-10 h (BLB)	3	68.6667	10.2632	A	0.0011
BGS9-10 h (BLB)	3	54.6667	6.1101	A	0.0131



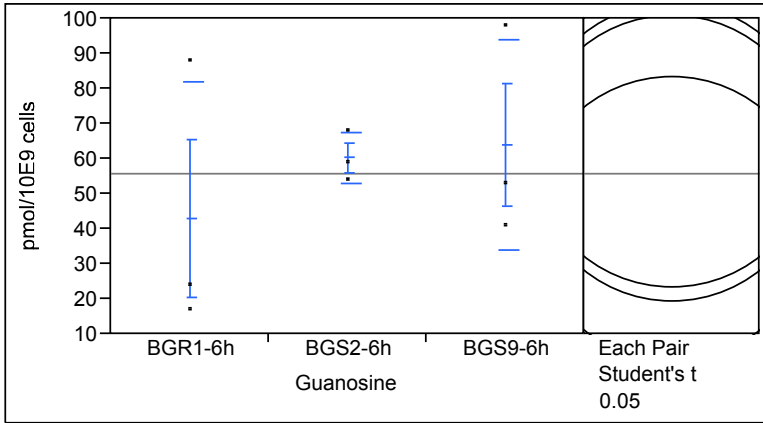
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	143.333	195.577	B	
BGS2-6 h (LB)	3	837.333	128.974	A	0.0131
BGS9-6 h (LB)	3	440.333	351.968	AB	0.1868



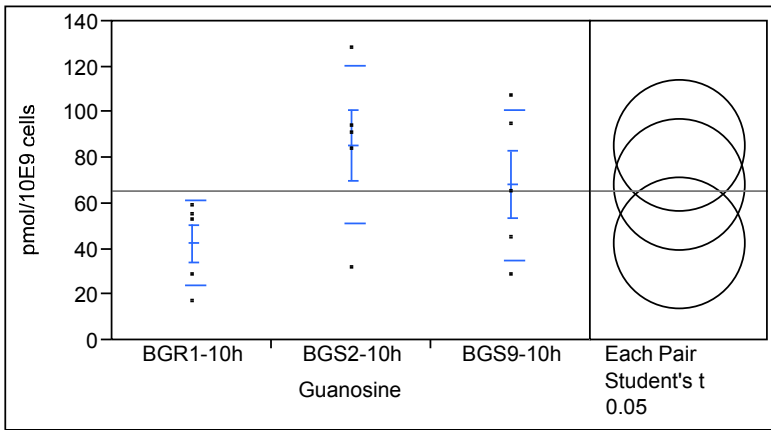
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	105.40	55.279	B	
BGS2-10 h (LB)	5	1062.00	459.416	A	0.0006
BGS9-10 h (LB)	5	549.20	322.927	B	0.0523



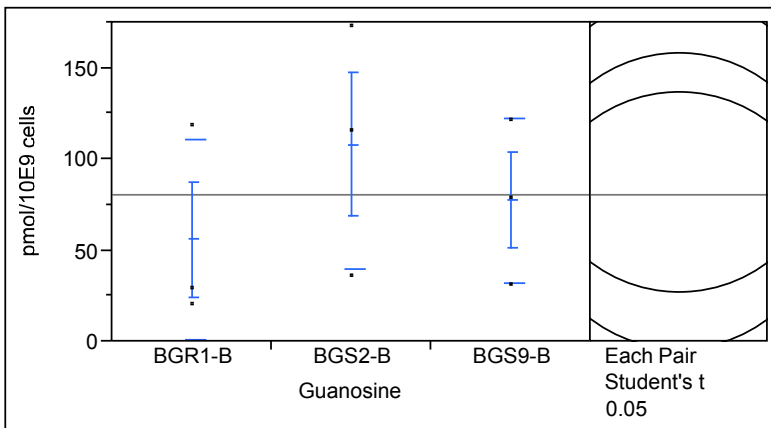
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	433.67	272.225	A	
BGS2-10 h (BLB)	3	1226.33	825.373	A	0.1590
BGS9-10 h (BLB)	3	1232.67	581.644	A	0.1562



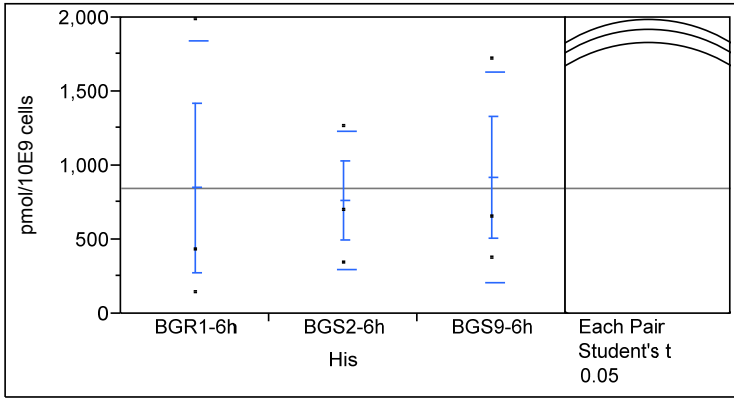
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	ρ -value against control
BGR1-6 h (LB)	3	43.0000	39.1280	A	
BGS2-6 h (LB)	3	60.3333	7.0946	A	0.4885
BGS9-6 h (LB)	3	64.0000	30.0500	A	0.4059



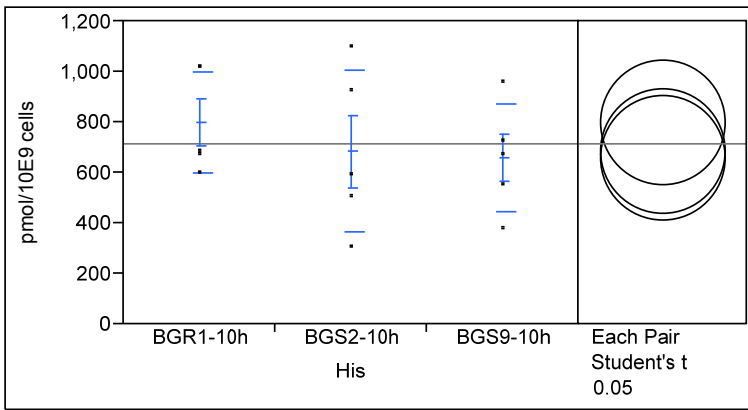
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	ρ -value against control
BGR1-10 h (LB)	5	42.6000	18.5149	B	
BGS2-10 h (LB)	5	85.8000	34.5427	A	0.0392
BGS9-10 h (LB)	5	68.2000	32.8207	AB	0.1953



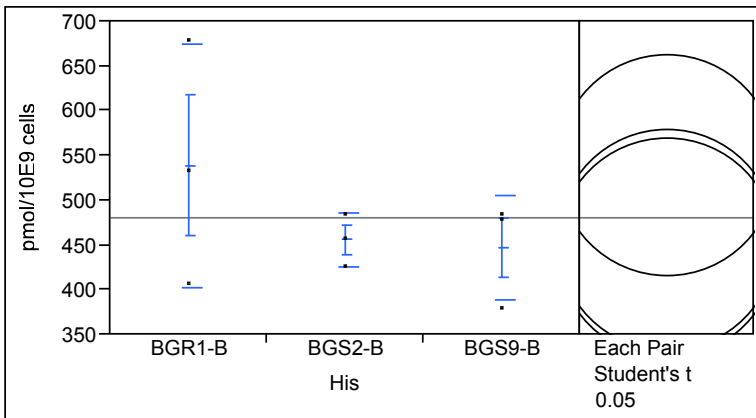
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	ρ -value against control
BGR1-10 h (BLB)	3	56.000	54.7449	A	
BGS2-10 h (BLB)	3	108.333	68.8210	A	0.3051
BGS9-10 h (BLB)	3	77.333	45.5229	A	0.6637



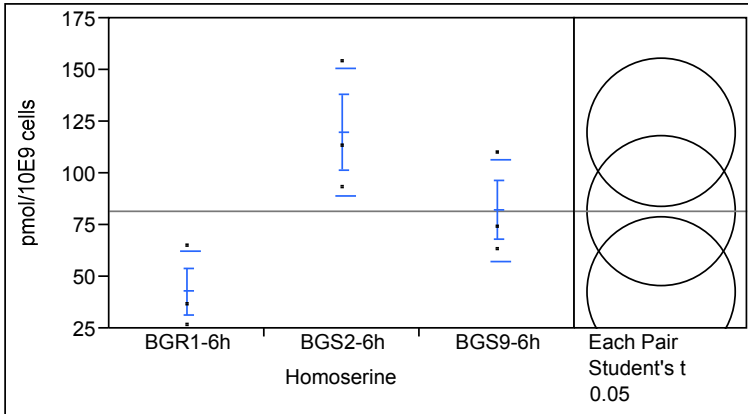
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	853.333	990.941	A	
BGS2-6 h (LB)	3	769.333	464.511	A	0.8958
BGS9-6 h (LB)	3	919.667	709.303	A	0.9176



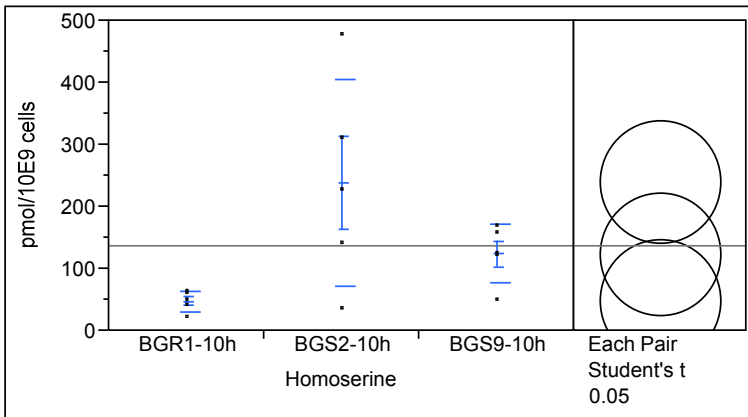
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	800.000	202.561	A	
BGS2-10 h (LB)	5	686.400	320.997	A	0.4888
BGS9-10 h (LB)	5	659.400	213.807	A	0.3941



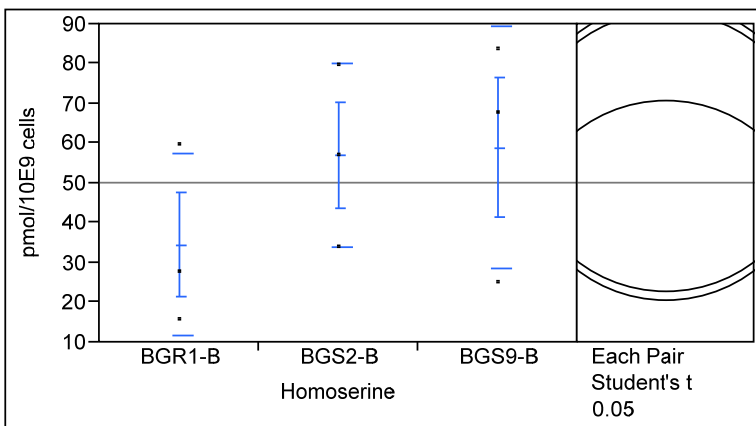
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	539.000	136.099	A	
BGS2-10 h (BLB)	3	456.000	29.513	A	0.2879
BGS9-10 h (BLB)	3	447.333	58.389	A	0.2453



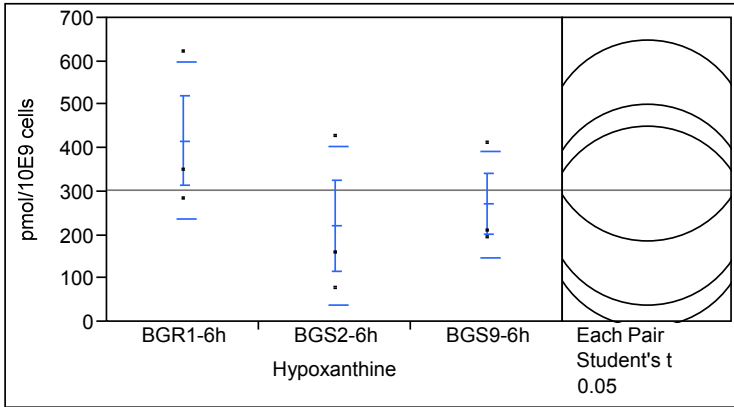
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	43.000	19.6977	B	
BGS2-6 h (LB)	3	120.000	31.0966	A	0.0102
BGS9-6 h (LB)	3	82.333	24.5832	AB	0.1084



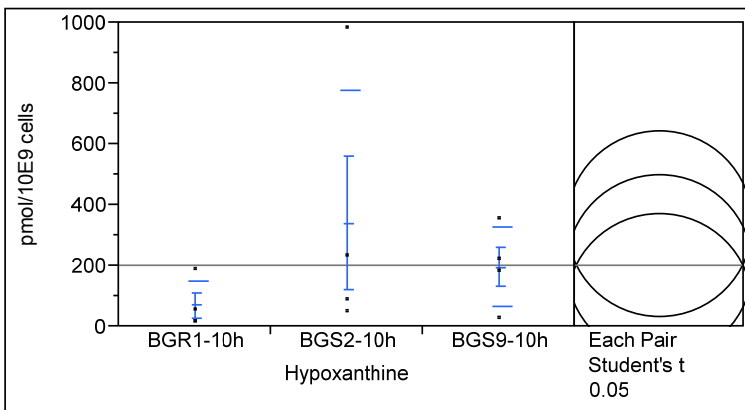
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	48.400	16.742	B	
BGS2-10 h (LB)	5	239.200	167.595	A	0.0113
BGS9-10 h (LB)	5	124.600	47.168	AB	0.2559



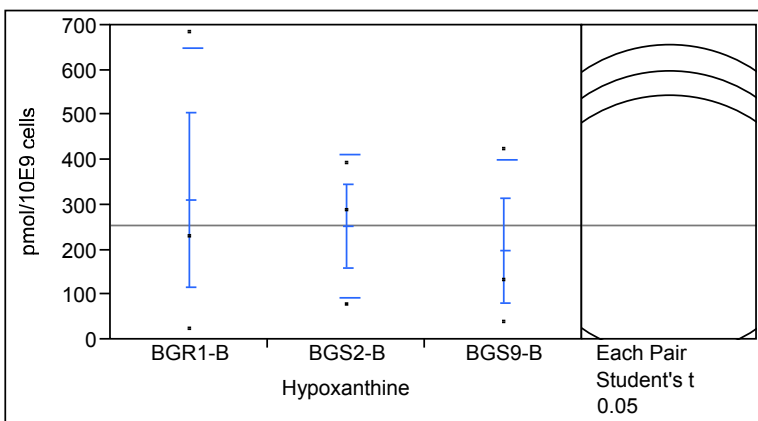
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	34.6667	22.7450	A	
BGS2-10 h (BLB)	3	57.0000	23.0000	A	0.3277
BGS9-10 h (BLB)	3	59.0000	30.5123	A	0.2898



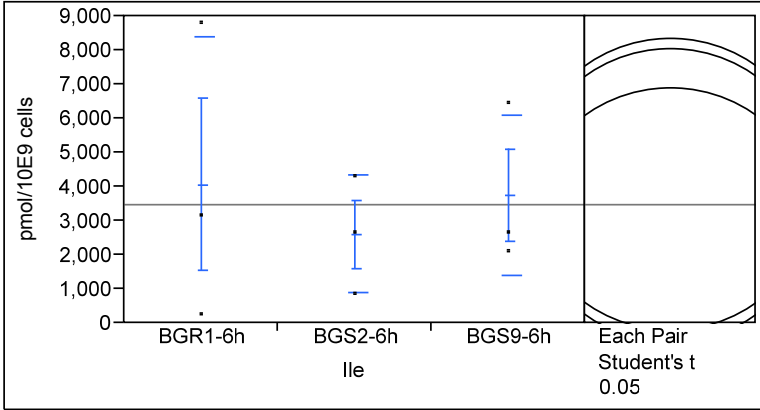
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	418.000	179.911	A	
BGS2-6 h (LB)	3	221.333	182.659	A	0.1922
BGS9-6 h (LB)	3	271.333	122.083	A	0.3153



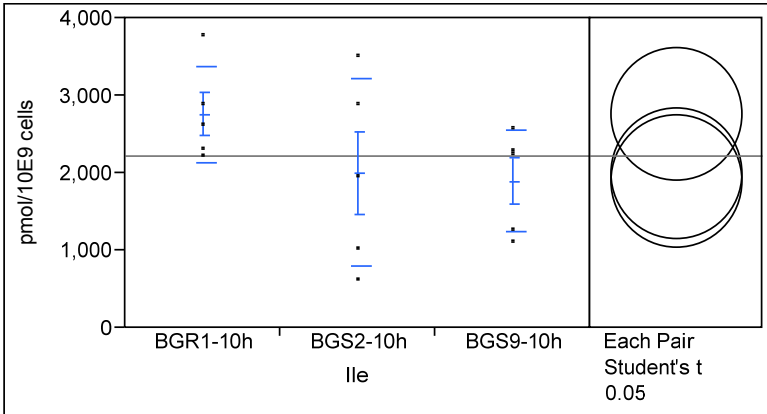
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	4	69.750	82.855	A	
BGS2-10 h (LB)	4	339.750	437.879	A	0.1887
BGS9-10 h (LB)	4	197.000	132.788	A	0.5195



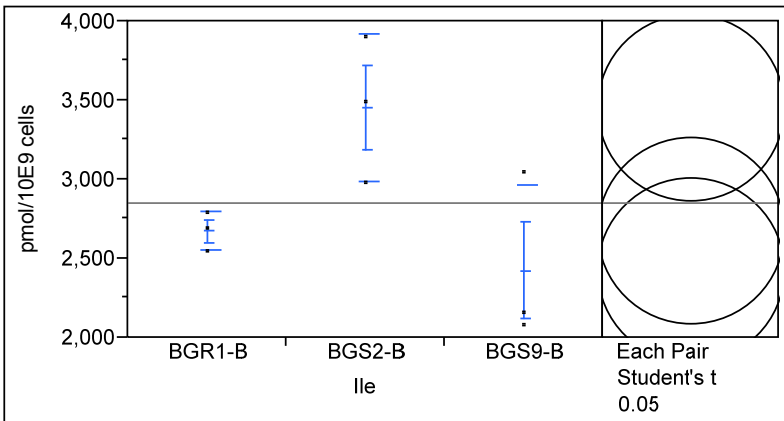
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	311.667	338.349	A	
BGS2-10 h (BLB)	3	252.667	158.973	A	0.7782
BGS9-10 h (BLB)	3	199.000	201.522	A	0.5940



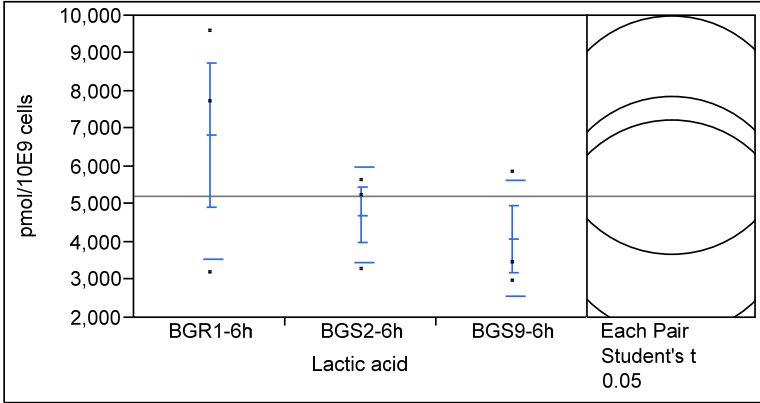
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	4070.33	4353.38	A	
BGS2-6 h (LB)	3	2607.67	1724.34	A	0.5759
BGS9-6 h (LB)	3	3753.00	2369.98	A	0.9021



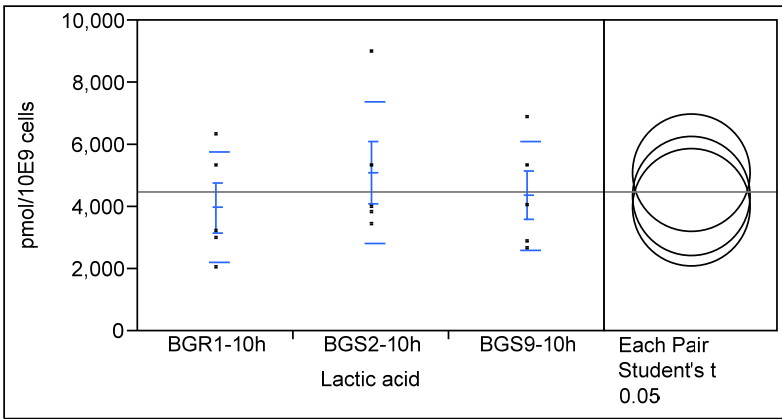
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	2765.20	622.86	A	
BGS2-10 h (LB)	5	2002.00	1211.71	A	0.1928
BGS9-10 h (LB)	5	1896.80	662.13	A	0.1424



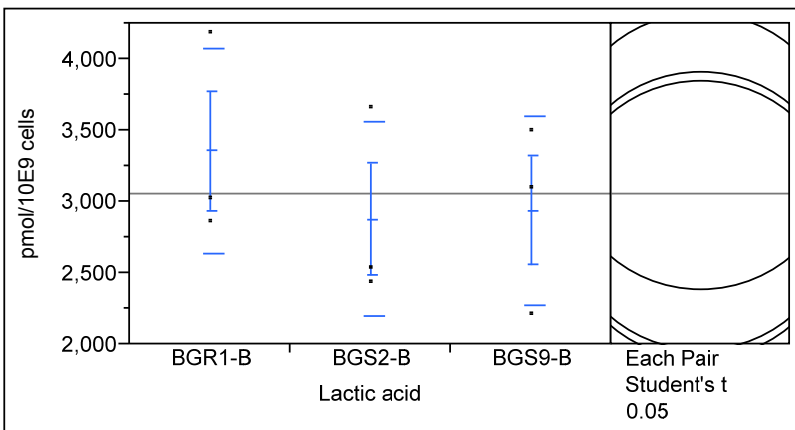
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	2675.67	124.536	AB	
BGS2-10 h (BLB)	3	3453.67	466.241	A	0.0620
BGS9-10 h (BLB)	3	2427.33	535.698	B	0.4925



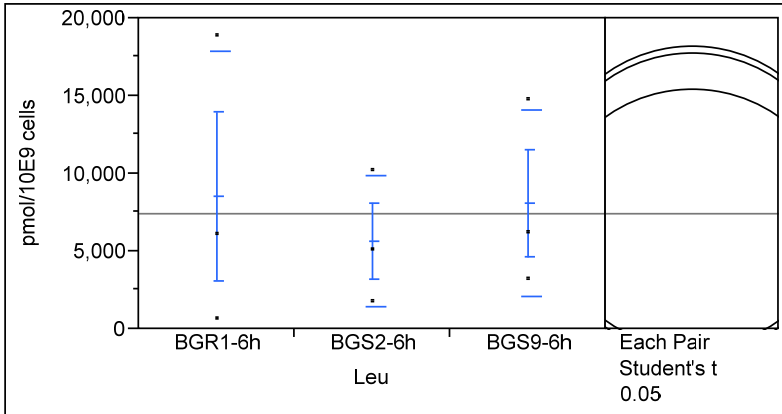
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	6844.33	3297.36	A	
BGS2-6 h (LB)	3	4717.67	1270.30	A	0.2859
BGS9-6 h (LB)	3	4105.67	1533.08	A	0.1822



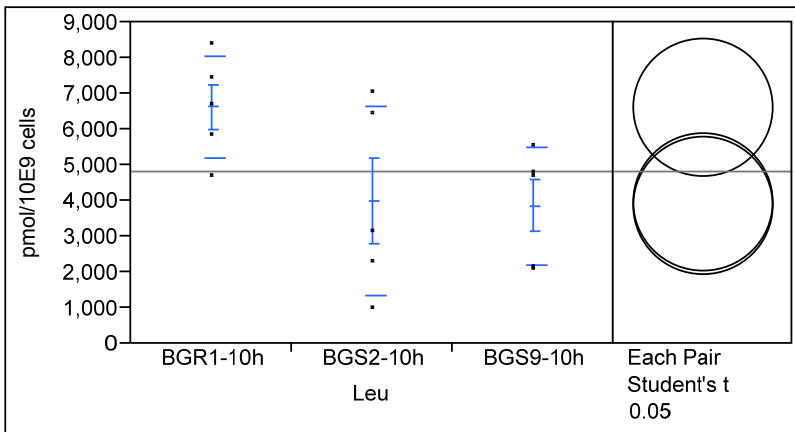
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	3986.20	1775.18	A	
BGS2-10 h (LB)	5	5116.20	2280.02	A	0.3782
BGS9-10 h (LB)	5	4370.00	1756.97	A	0.7613



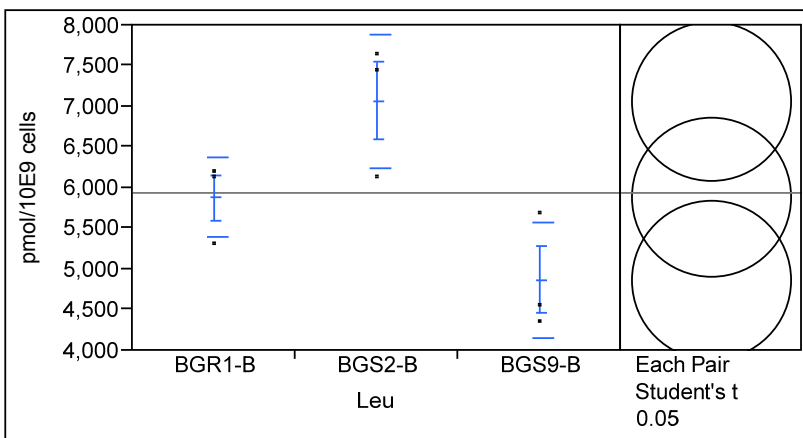
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	3359.33	720.595	A	
BGS2-10 h (BLB)	3	2876.67	680.013	A	0.4230
BGS9-10 h (BLB)	3	2938.00	661.127	A	0.4814



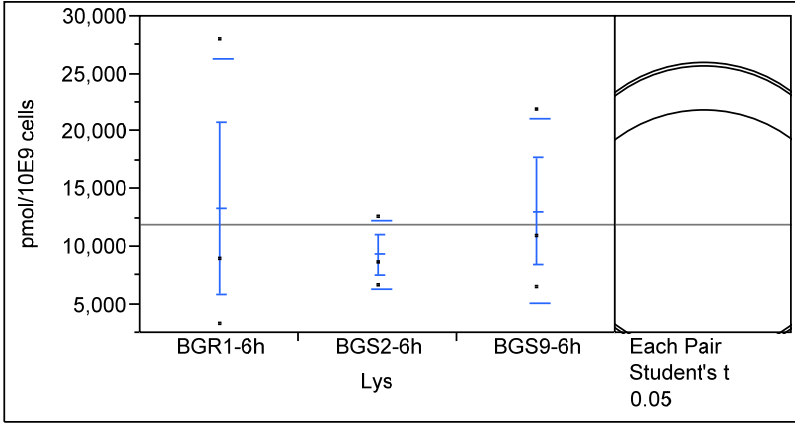
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	8550.67	9384.00	A	
BGS2-6 h (LB)	3	5674.00	4265.59	A	0.6269
BGS9-6 h (LB)	3	8076.00	5982.08	A	0.9354



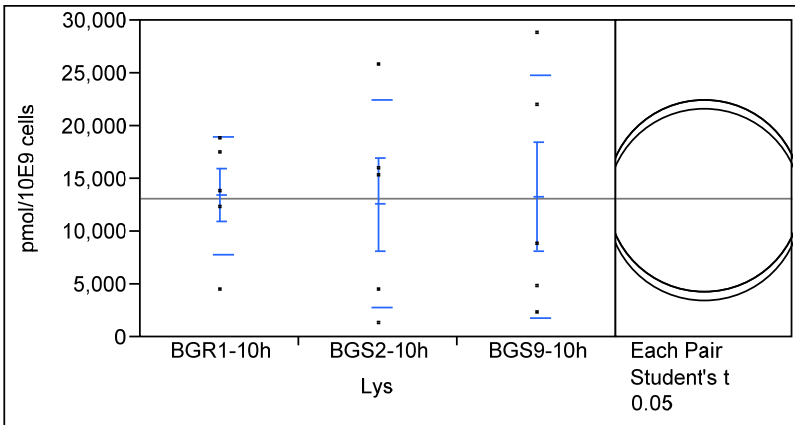
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	6628.20	1426.82	A	
BGS2-10 h (LB)	5	3993.80	2652.64	AB	0.0569
BGS9-10 h (LB)	5	3854.40	1630.90	B	0.0466



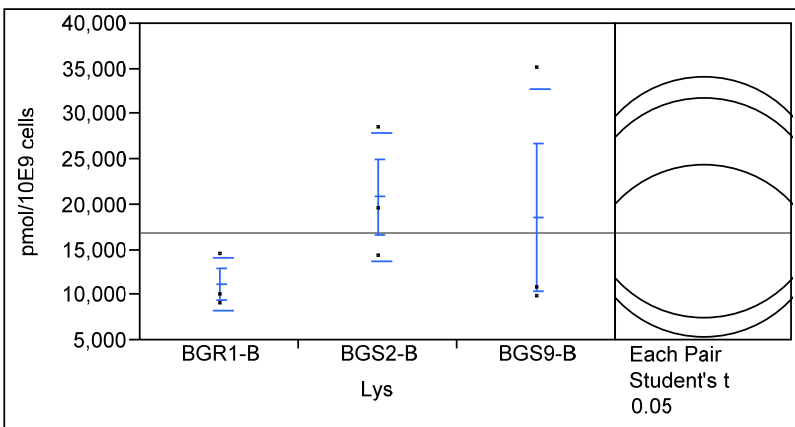
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	5881.00	489.763	AB	
BGS2-10 h (BLB)	3	7072.67	823.151	A	0.0788
BGS9-10 h (BLB)	3	4871.33	715.076	B	0.1233



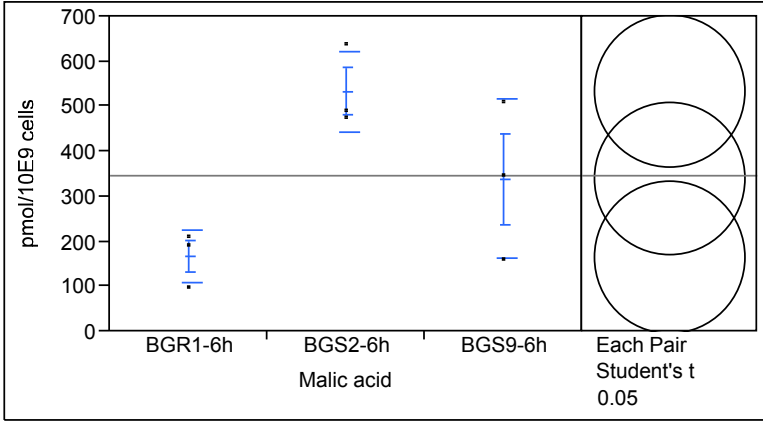
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	13388.3	12930.4	A	
BGS2-6 h (LB)	3	9316.7	3021.8	A	0.5977
BGS9-6 h (LB)	3	13079.7	8006.5	A	0.9677



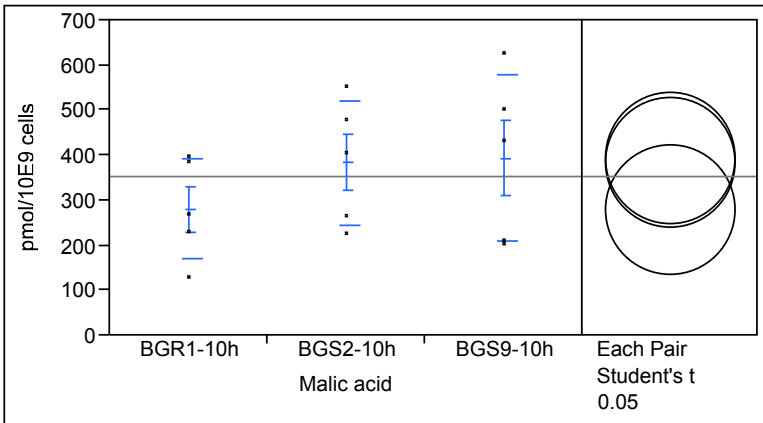
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	13452.4	5626.7	A	
BGS2-10 h (LB)	5	12605.6	9853.0	A	0.8882
BGS9-10 h (LB)	5	13391.4	11499.8	A	0.9919



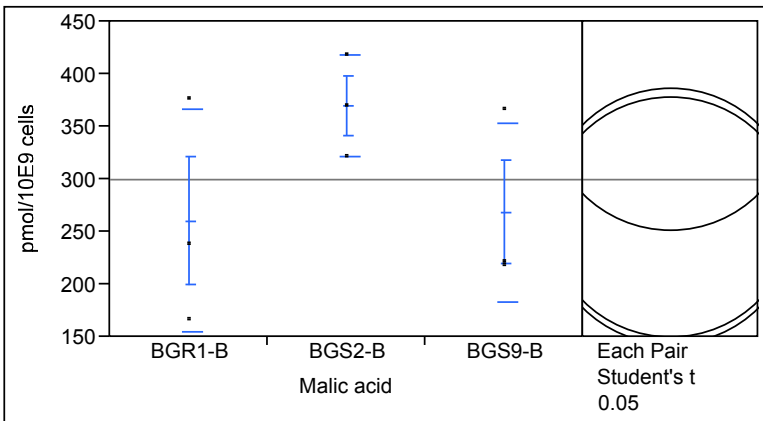
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	11220.3	2878.7	A	
BGS2-10 h (BLB)	3	20854.3	7152.4	A	0.2549
BGS9-10 h (BLB)	3	18600.3	14289.0	A	0.3722



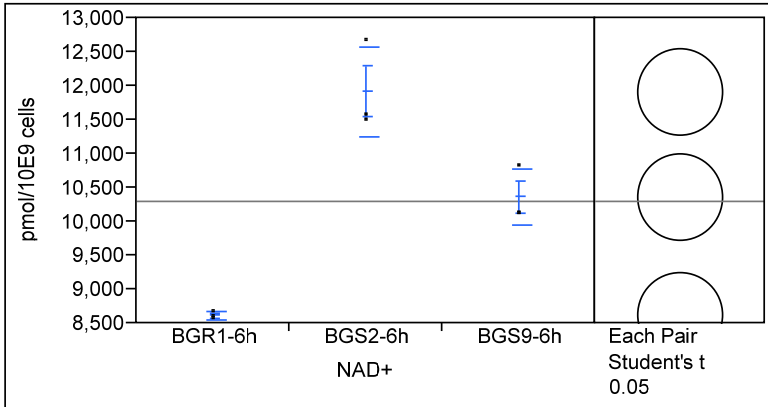
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	166.333	59.164	B	
BGS2-6 h (LB)	3	533.667	89.846	A	0.0092
BGS9-6 h (LB)	3	339.333	176.160	AB	0.1257



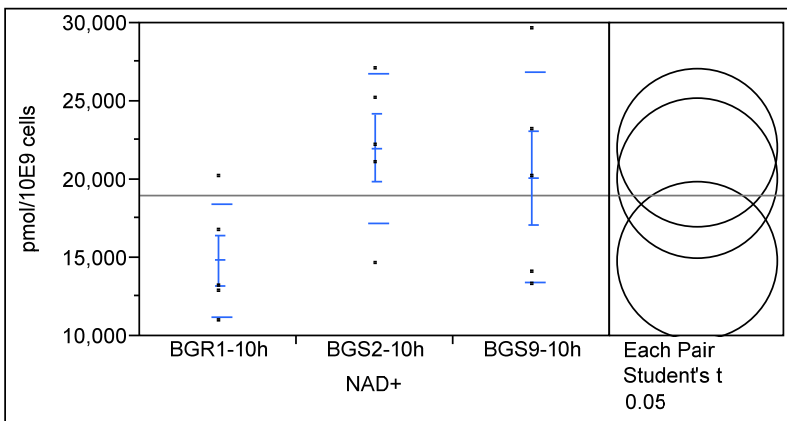
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	281.000	111.741	A	
BGS2-10 h (LB)	5	384.800	138.004	A	0.2895
BGS9-10 h (LB)	5	394.600	185.147	A	0.2486



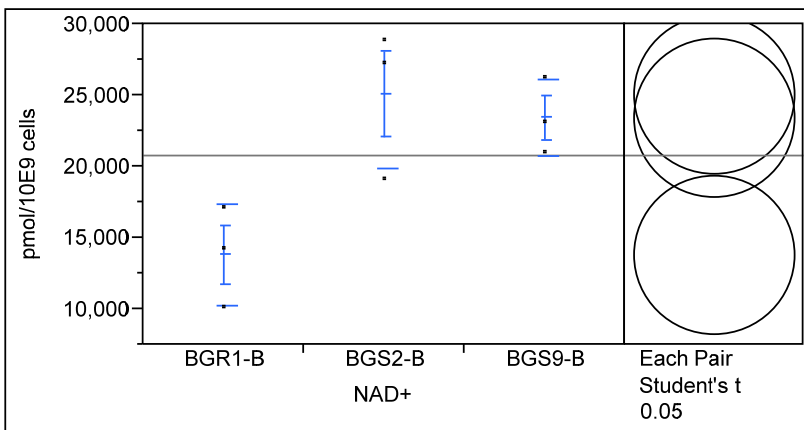
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	260.667	106.171	A	
BGS2-10 h (BLB)	3	370.000	49.000	A	0.1600
BGS9-10 h (BLB)	3	268.667	85.172	A	0.9104



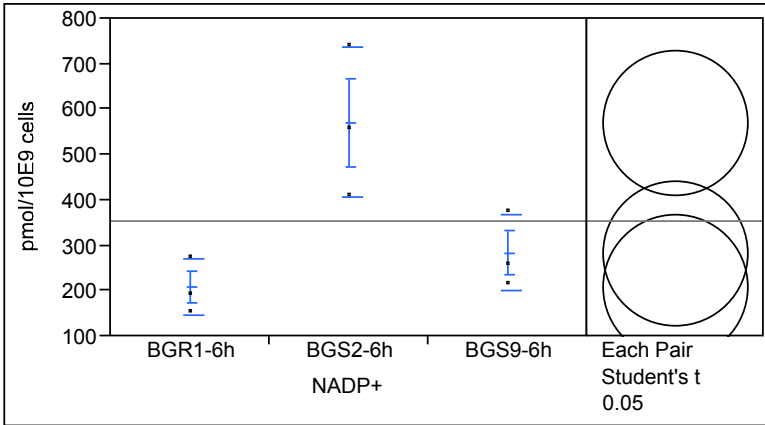
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	8617.0	60.058	C	
BGS2-6 h (LB)	3	11914.7	652.228	A	<.0001
BGS9-6 h (LB)	3	10364.7	404.734	B	0.0030



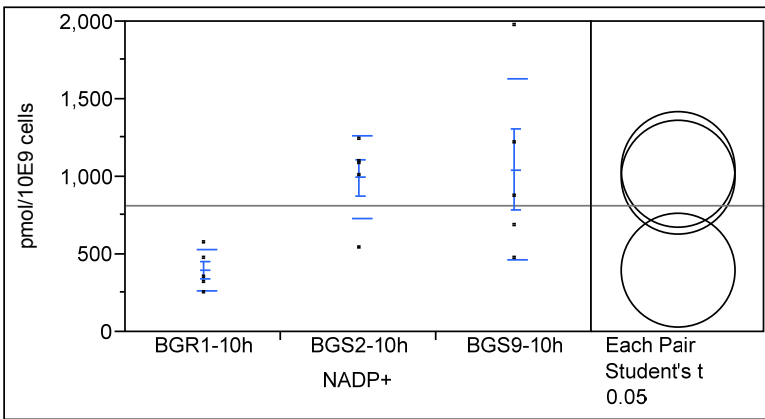
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	14836.4	3652.73	B	
BGS2-10 h (LB)	5	22038.2	4770.59	A	0.0494
BGS9-10 h (LB)	5	20125.6	6732.54	AB	0.1344



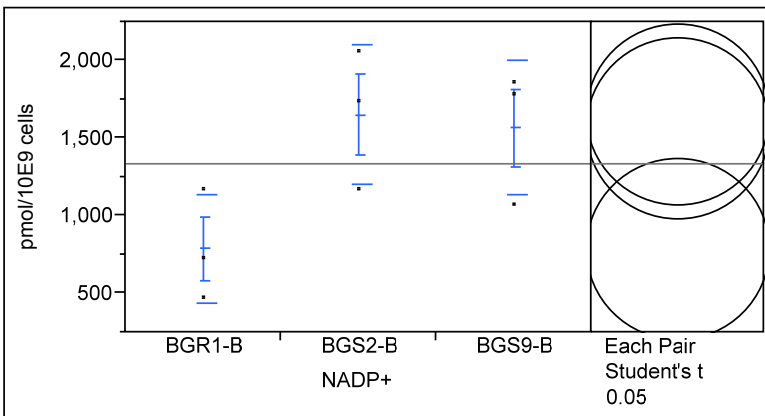
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	13816.0	3570.76	B	
BGS2-10 h (BLB)	3	25081.0	5216.38	A	0.0131
BGS9-10 h (BLB)	3	23451.0	2669.36	A	0.0247



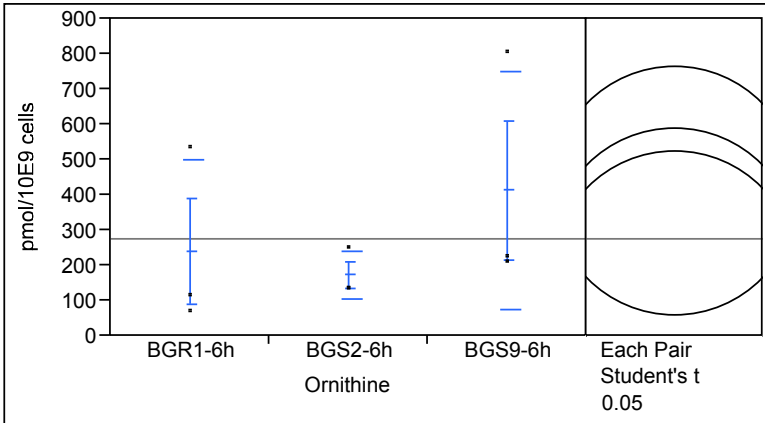
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	208.000	61.579	B	
BGS2-6 h (LB)	3	570.667	165.258	A	0.0075
BGS9-6 h (LB)	3	284.000	82.656	B	0.4395



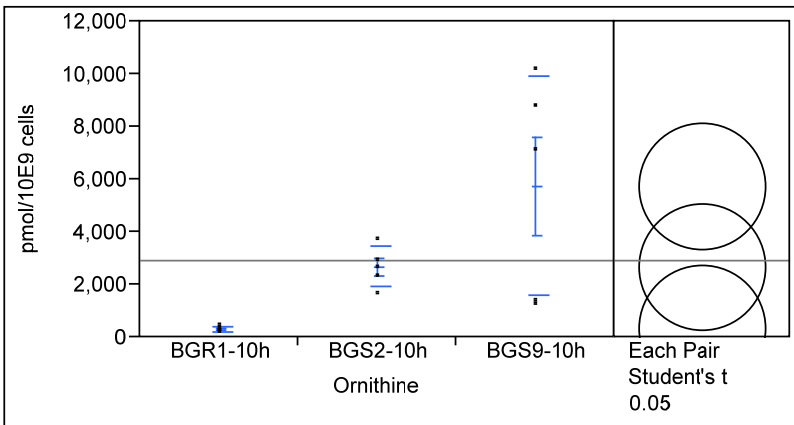
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	400.00	130.658	B	
BGS2-10 h (LB)	5	998.20	264.867	A	0.0283
BGS9-10 h (LB)	5	1049.40	587.197	A	0.0191



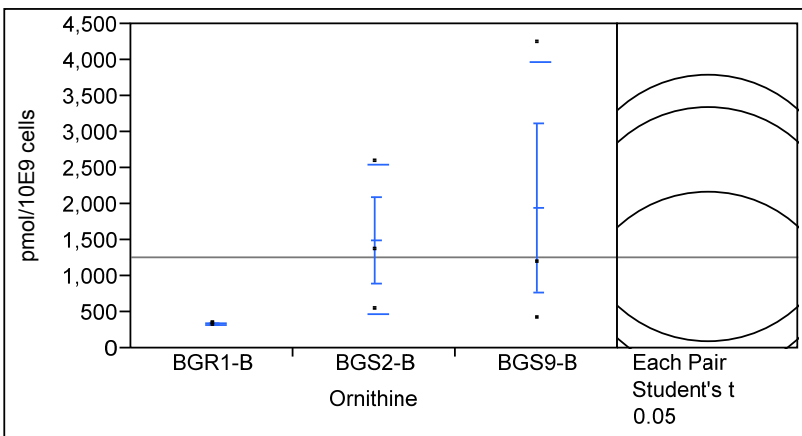
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	789.33	352.925	B	
BGS2-10 h (BLB)	3	1655.00	449.287	A	0.0427
BGS9-10 h (BLB)	3	1569.67	431.801	AB	0.0601



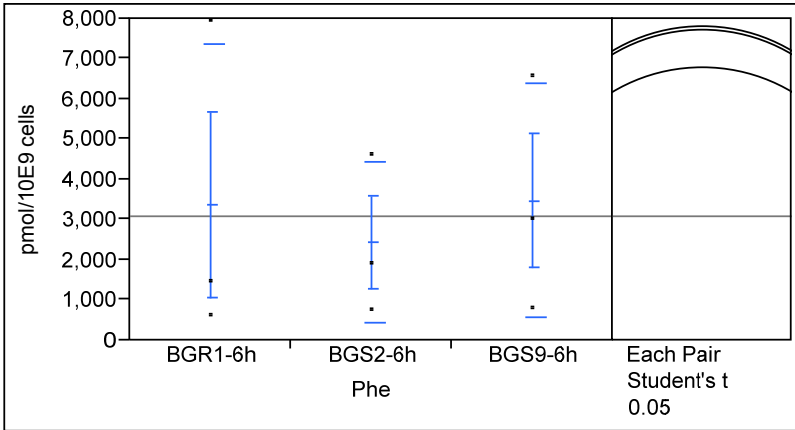
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	240.333	258.039	A	
BGS2-6 h (LB)	3	173.667	67.002	A	0.7537
BGS9-6 h (LB)	3	412.667	338.122	A	0.4284



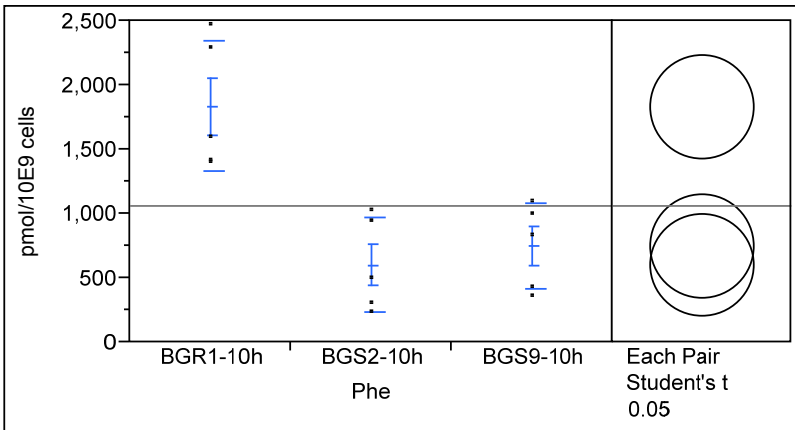
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	310.80	99.83	B	
BGS2-10 h (LB)	5	2668.60	766.75	AB	0.1552
BGS9-10 h (LB)	5	5760.00	4185.57	A	0.0043



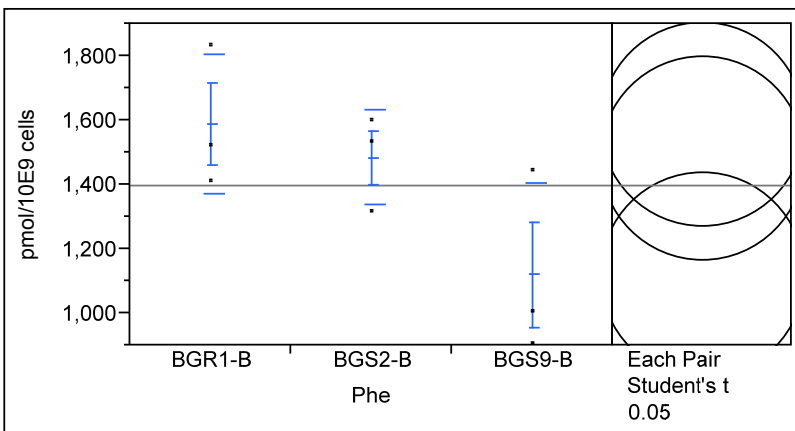
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	336.67	10.97	A	
BGS2-10 h (BLB)	3	1506.33	1035.66	A	0.3159
BGS9-10 h (BLB)	3	1950.67	2017.77	A	0.1819



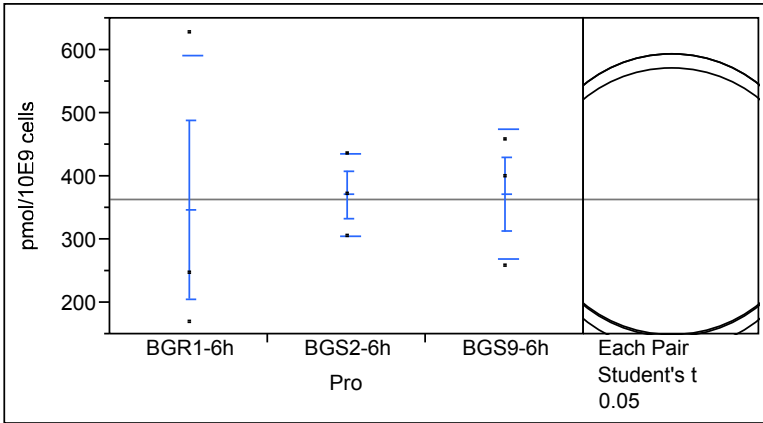
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	3362.00	4006.43	A	
BGS2-6 h (LB)	3	2431.00	1999.22	A	0.7243
BGS9-6 h (LB)	3	3481.33	2911.74	A	0.9637



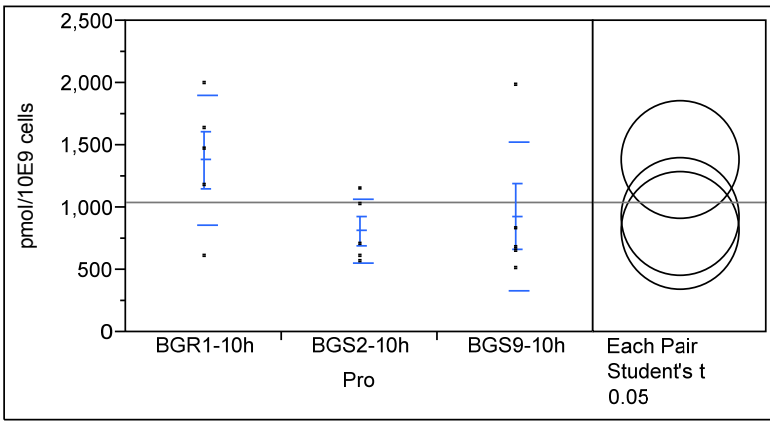
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	1835.00	507.590	A	
BGS2-10 h (LB)	5	602.40	366.880	B	0.0005
BGS9-10 h (LB)	5	747.60	334.024	B	0.0012



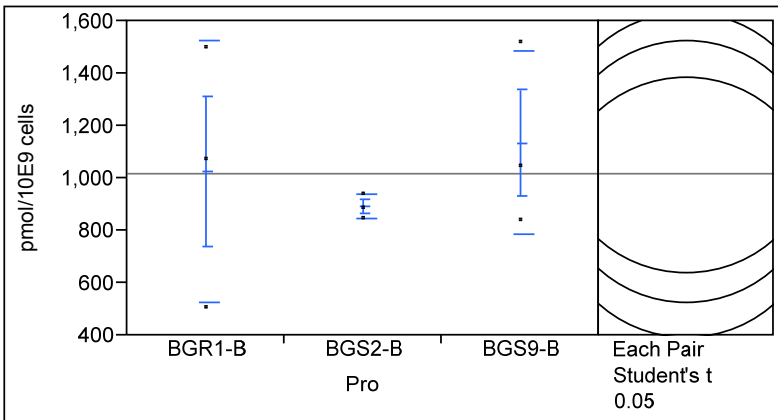
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	1589.33	218.660	A	
BGS2-10 h (BLB)	3	1484.33	146.936	AB	0.5887
BGS9-10 h (BLB)	3	1119.67	287.683	B	0.0433



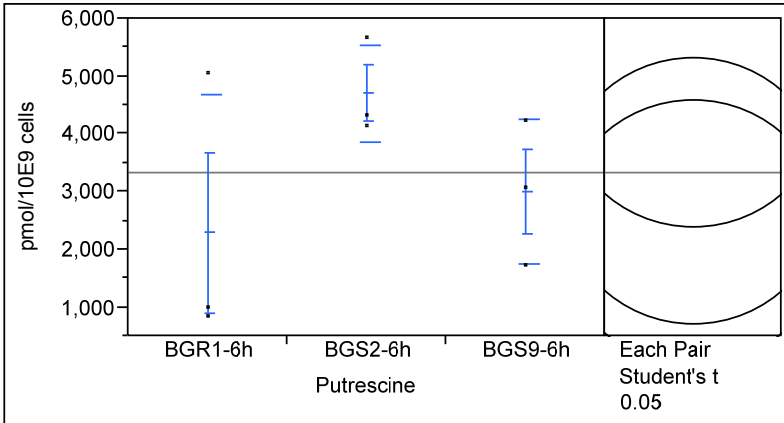
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	348.000	244.829	A	
BGS2-6 h (LB)	3	371.333	65.501	A	0.8622
BGS9-6 h (LB)	3	372.000	102.211	A	0.8583



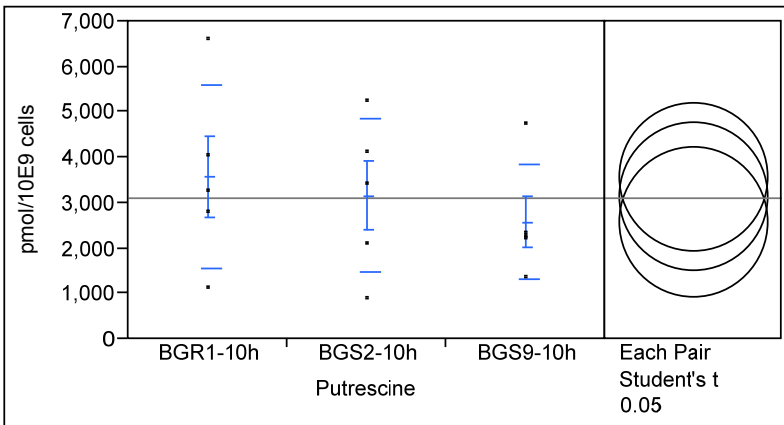
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	1385.00	520.846	A	
BGS2-10 h (LB)	5	816.40	259.335	A	0.0866
BGS9-10 h (LB)	5	930.20	597.985	A	0.1613



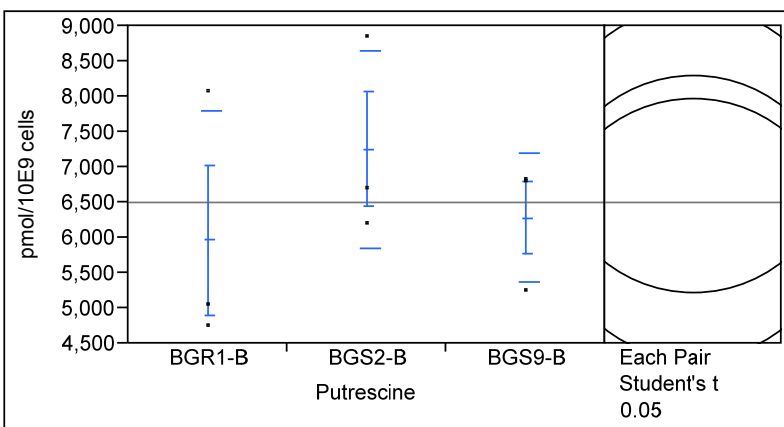
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	1027.33	497.506	A	
BGS2-10 h (BLB)	3	891.67	46.522	A	0.6538
BGS9-10 h (BLB)	3	1134.67	349.923	A	0.7218



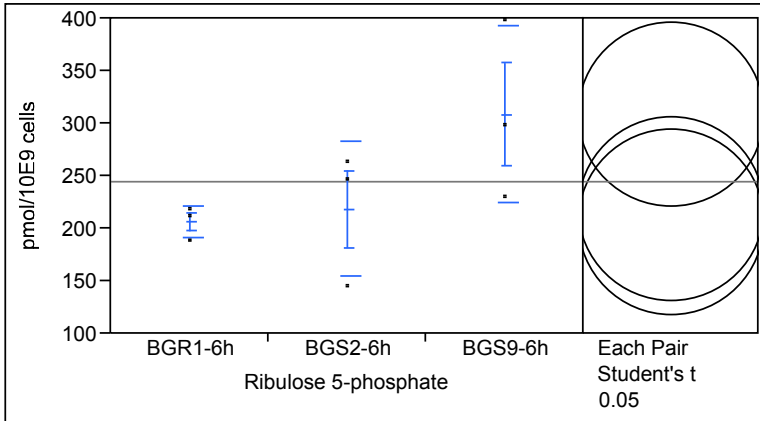
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	2287.67	2391.16	A	
BGS2-6 h (LB)	3	4710.00	840.35	A	0.1193
BGS9-6 h (LB)	3	3008.00	1259.47	A	0.6087



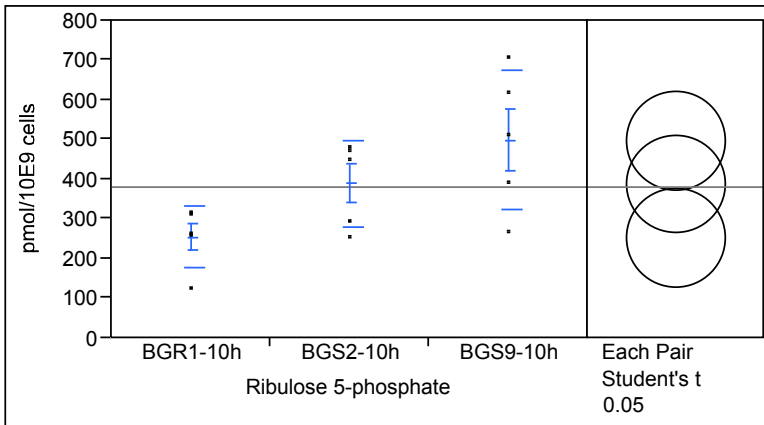
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	3576.60	2008.78	A	
BGS2-10 h (LB)	5	3160.00	1700.60	A	0.7028
BGS9-10 h (LB)	5	2580.40	1263.58	A	0.3685



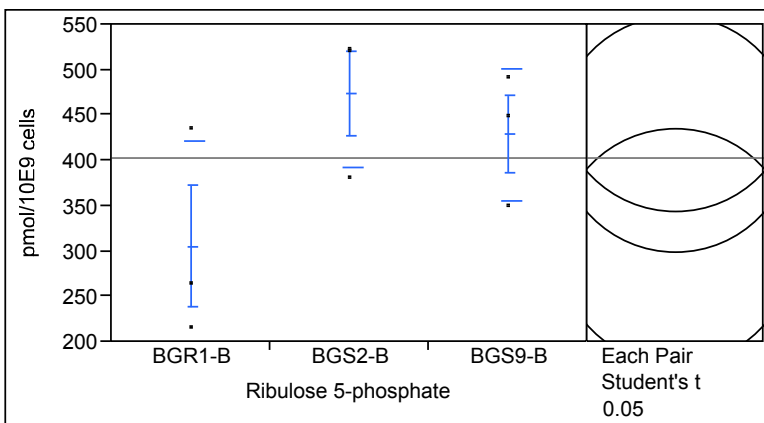
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	5963.67	1838.48	A	
BGS2-10 h (BLB)	3	7256.67	1401.21	A	0.3112
BGS9-10 h (BLB)	3	6287.00	900.76	A	0.7915



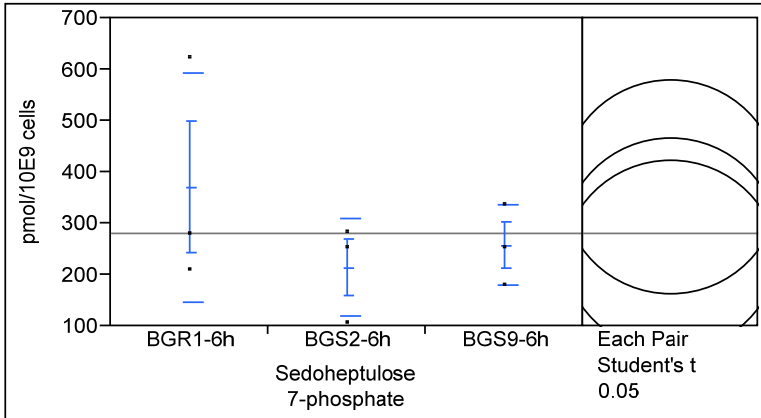
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	206.667	15.6950	A	
BGS2-6 h (LB)	3	218.667	64.3610	A	0.8204
BGS9-6 h (LB)	3	309.000	84.4452	A	0.0896



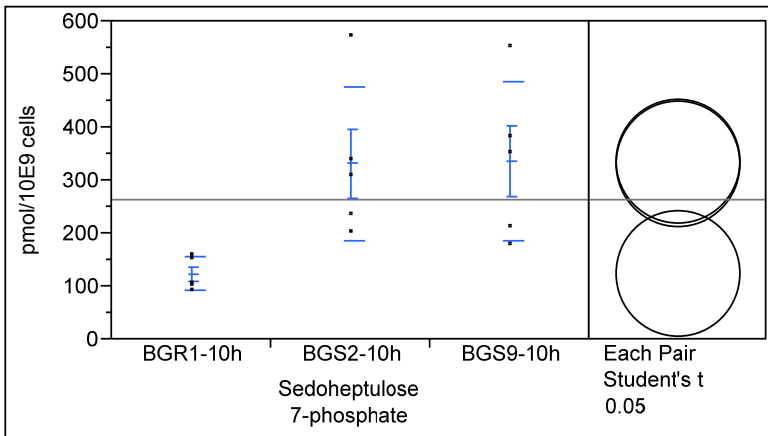
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	254.400	76.768	B	
BGS2-10 h (LB)	5	389.200	108.682	AB	0.1192
BGS9-10 h (LB)	5	499.000	175.231	A	0.0102



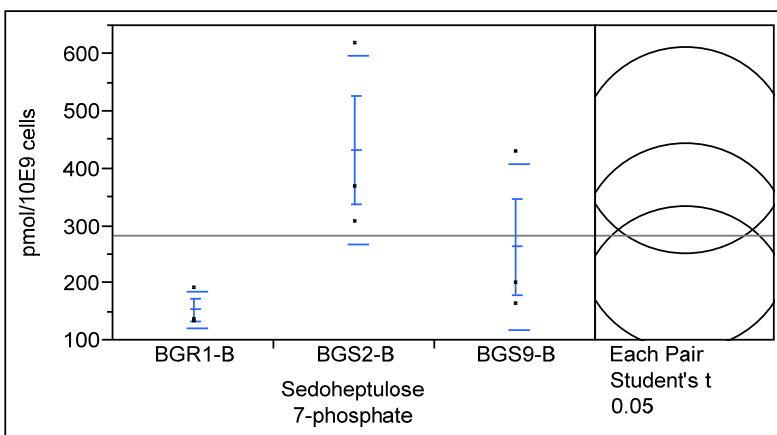
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	305.333	115.889	A	
BGS2-10 h (BLB)	3	474.333	81.697	A	0.0655
BGS9-10 h (BLB)	3	429.333	72.817	A	0.1500



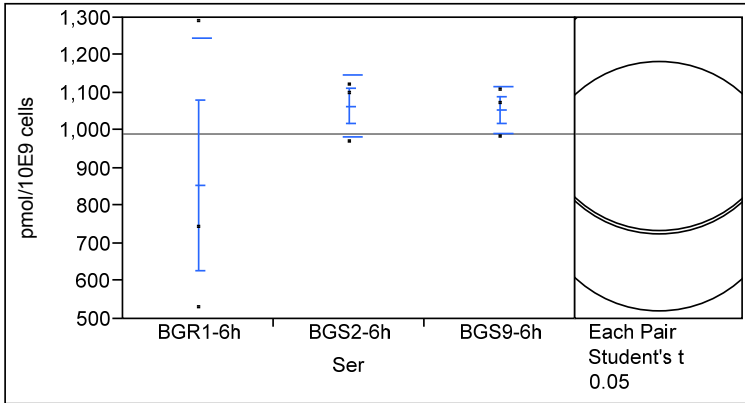
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	371.000	222.738	A	
BGS2-6 h (LB)	3	214.333	95.259	A	0.2397
BGS9-6 h (LB)	3	257.333	78.590	A	0.3803



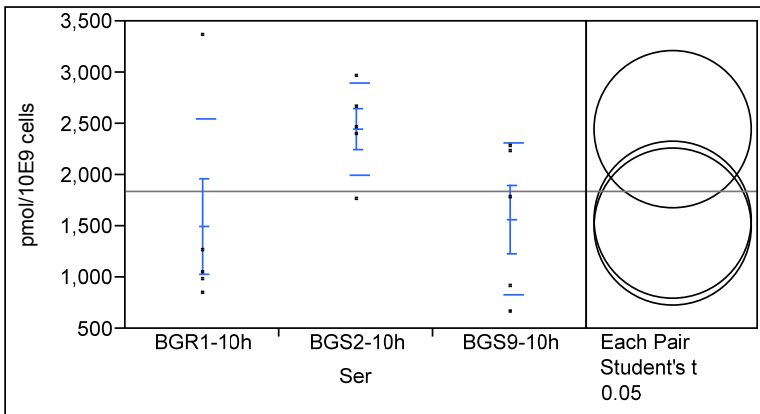
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	123.600	31.453	B	
BGS2-10 h (LB)	5	332.000	144.964	A	0.0187
BGS9-10 h (LB)	5	336.600	148.717	A	0.0167



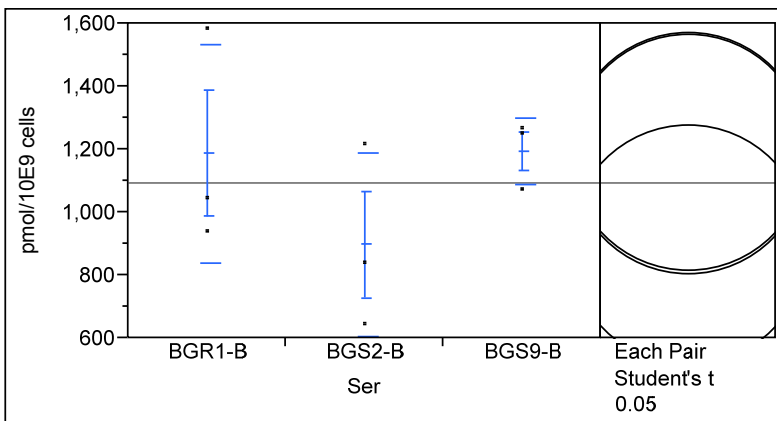
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	154.000	32.924	B	
BGS2-10 h (BLB)	3	432.000	164.612	A	0.0375
BGS9-10 h (BLB)	3	264.333	144.659	AB	0.3315



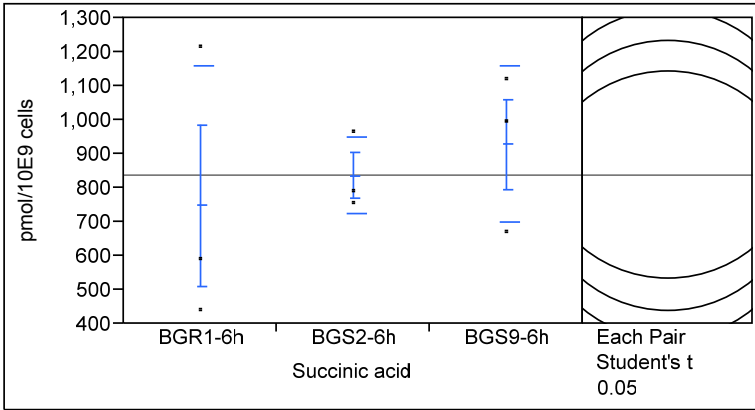
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	854.67	391.480	A	
BGS2-6 h (LB)	3	1065.33	81.715	A	0.3121
BGS9-6 h (LB)	3	1056.33	63.658	A	0.3314



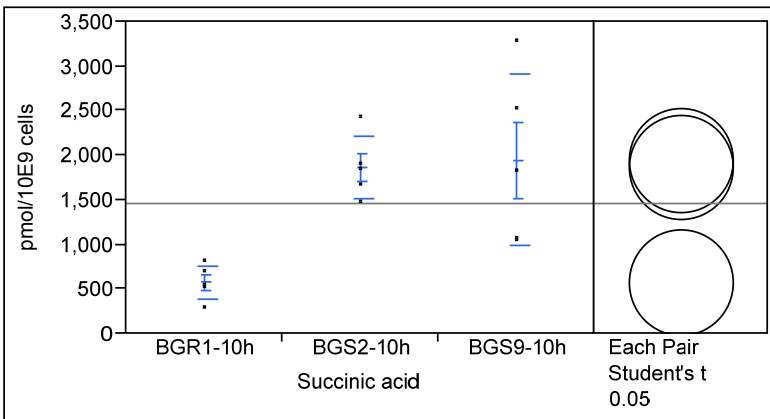
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	1503.20	1052.18	A	
BGS2-10 h (LB)	5	2452.00	444.36	A	0.0810
BGS9-10 h (LB)	5	1574.40	745.04	A	0.8887



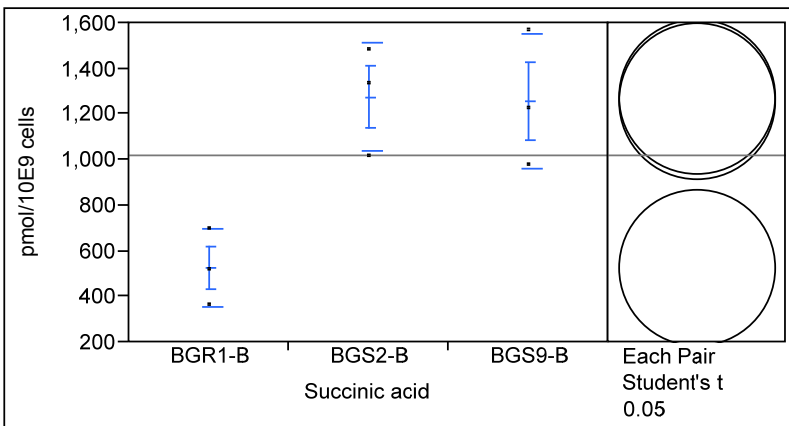
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	1188.00	346.866	A	
BGS2-10 h (BLB)	3	899.00	291.979	A	0.2363
BGS9-10 h (BLB)	3	1194.67	107.361	A	0.9768



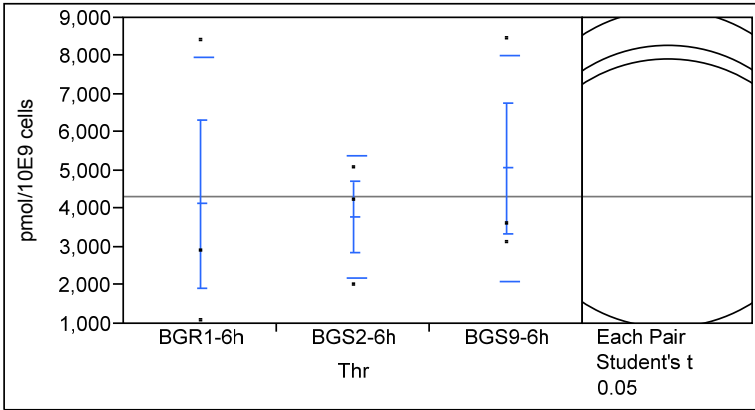
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	749.000	411.605	A	
BGS2-6 h (LB)	3	837.000	114.175	A	0.7138
BGS9-6 h (LB)	3	928.667	230.498	A	0.4622



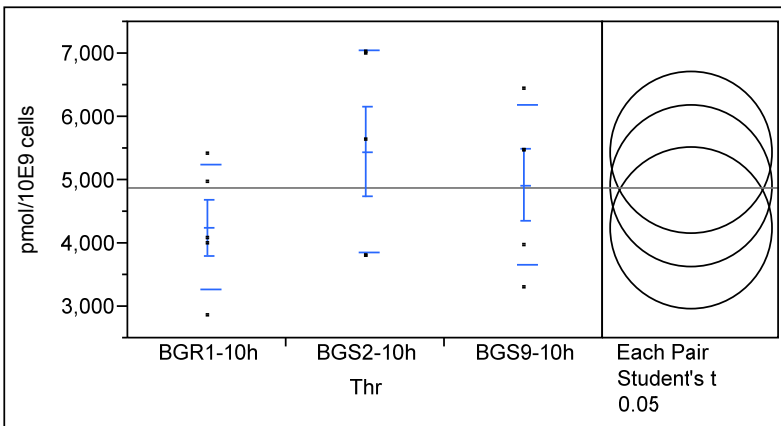
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	574.40	193.470	B	
BGS2-10 h (LB)	5	1868.00	356.852	A	0.0054
BGS9-10 h (LB)	5	1947.60	964.073	A	0.0037



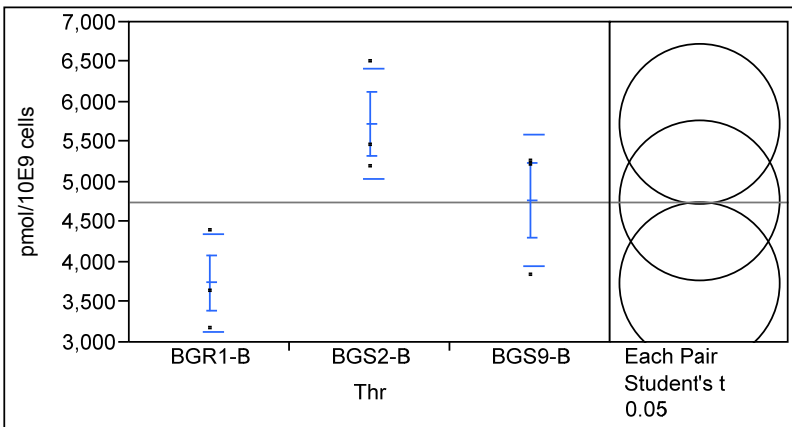
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	526.67	168.099	B	
BGS2-10 h (BLB)	3	1275.33	239.091	A	0.0089
BGS9-10 h (BLB)	3	1258.00	297.138	A	0.0098



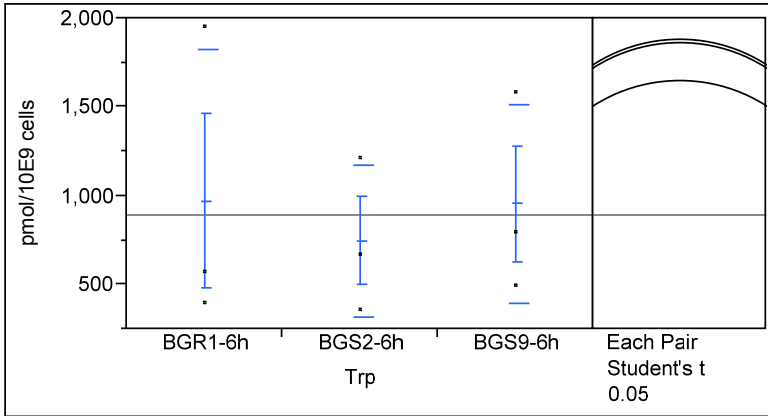
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	4133.67	3828.58	A	
BGS2-6 h (LB)	3	3797.33	1583.44	A	0.8930
BGS9-6 h (LB)	3	5068.33	2944.23	A	0.7099



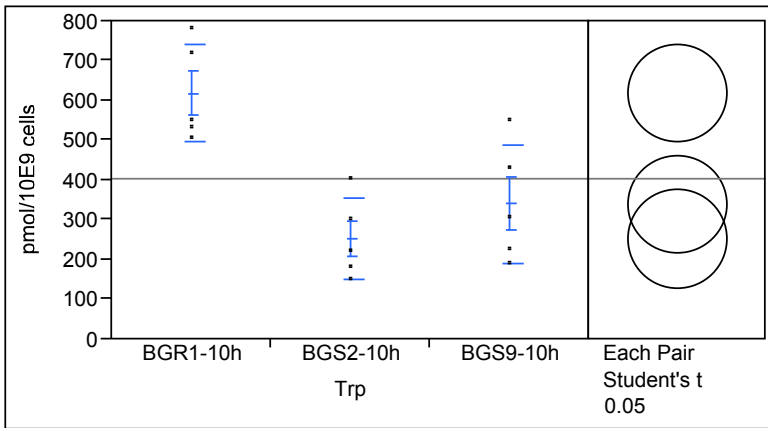
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	4259.80	989.70	A	
BGS2-10 h (LB)	5	5454.40	1605.10	A	0.1759
BGS9-10 h (LB)	5	4927.00	1271.89	A	0.4374



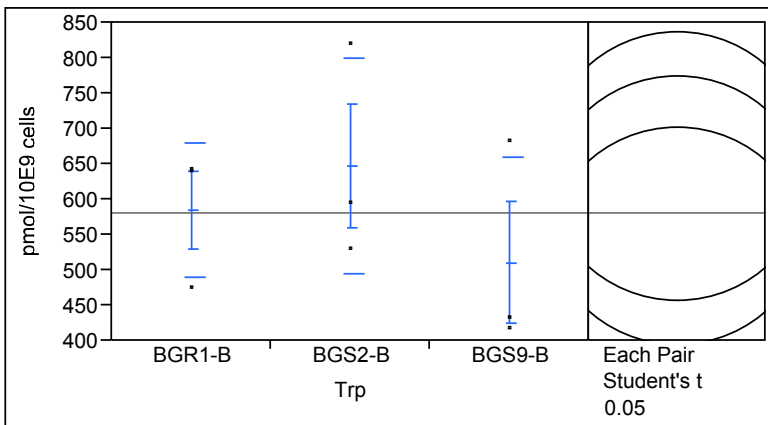
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	3746.00	610.224	B	
BGS2-10 h (BLB)	3	5728.33	693.574	A	0.0142
BGS9-10 h (BLB)	3	4779.00	812.470	AB	0.1252



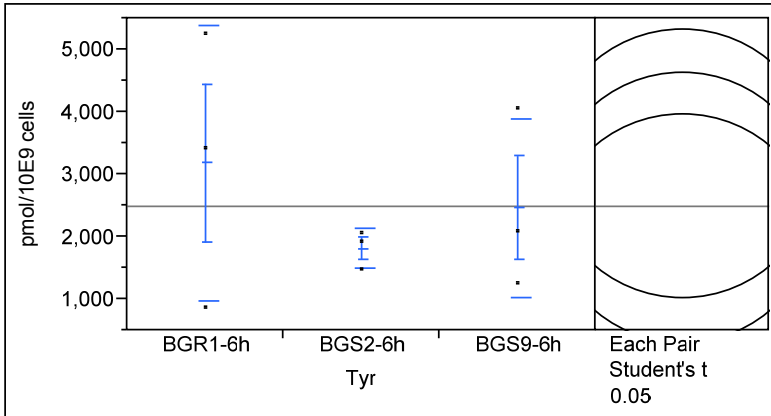
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	974.000	854.978	A	
BGS2-6 h (LB)	3	747.333	430.967	A	0.6799
BGS9-6 h (LB)	3	957.333	560.420	A	0.9756



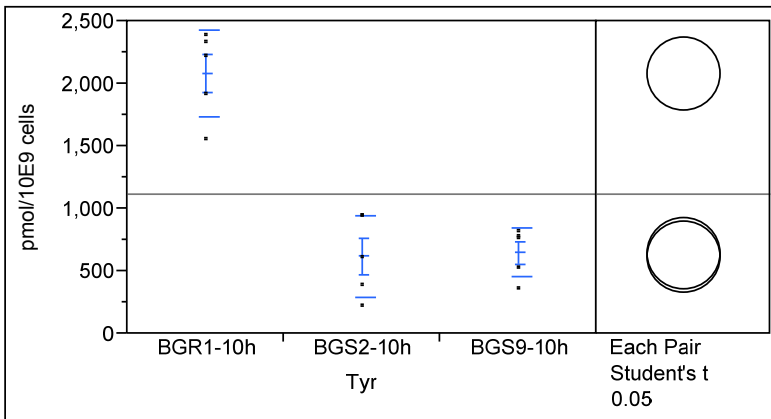
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	619.800	123.532	A	
BGS2-10 h (LB)	5	253.000	102.608	B	0.0006
BGS9-10 h (LB)	5	340.400	148.781	B	0.0044



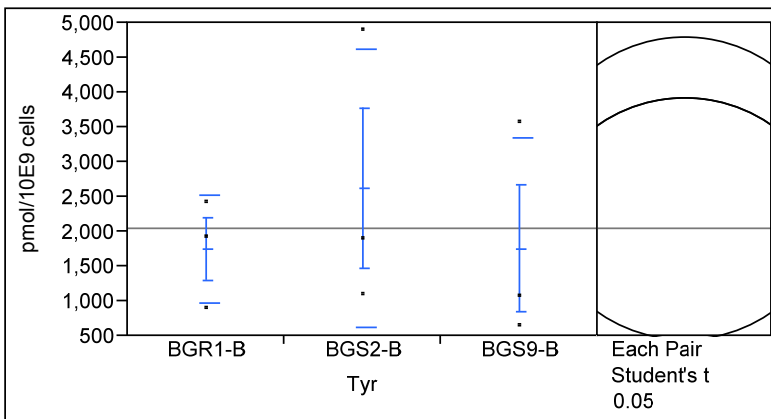
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	585.000	96.141	A	
BGS2-10 h (BLB)	3	647.333	152.179	A	0.5922
BGS9-10 h (BLB)	3	511.000	149.171	A	0.5269



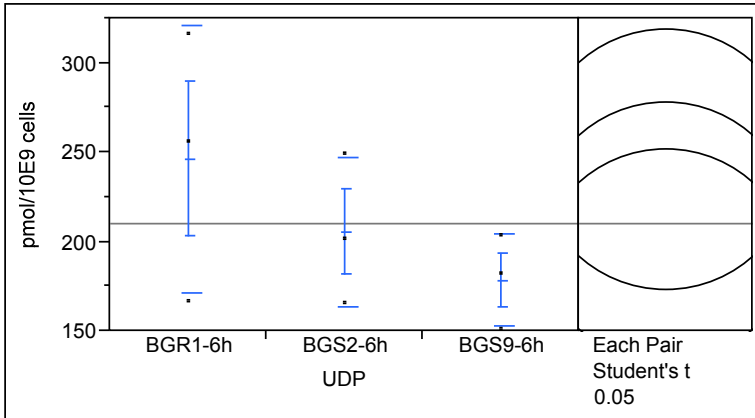
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	3180.67	2207.42	A	
BGS2-6 h (LB)	3	1819.33	310.97	A	0.3176
BGS9-6 h (LB)	3	2469.00	1431.82	A	0.5895



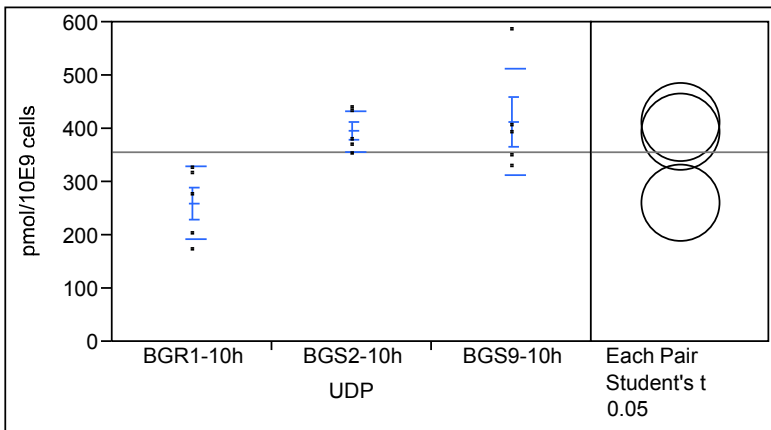
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	2083.40	344.288	A	
BGS2-10 h (LB)	5	620.20	321.882	B	<.0001
BGS9-10 h (LB)	5	647.60	194.387	B	<.0001



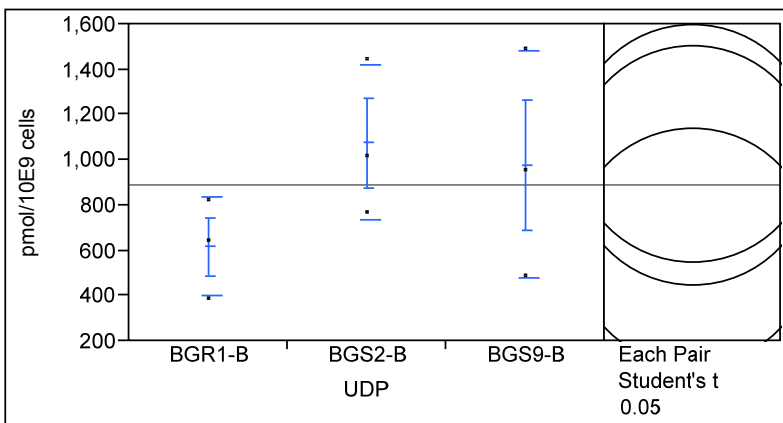
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	1754.00	770.21	A	
BGS2-10 h (BLB)	3	2630.00	2004.22	A	0.5115
BGS9-10 h (BLB)	3	1761.33	1576.67	A	0.9955



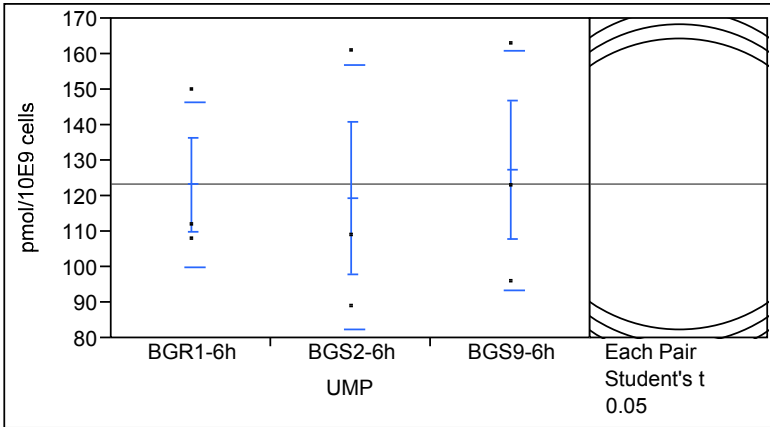
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	246.333	74.9689	A	
BGS2-6 h (LB)	3	205.667	41.6213	A	0.3731
BGS9-6 h (LB)	3	178.667	26.1598	A	0.1605



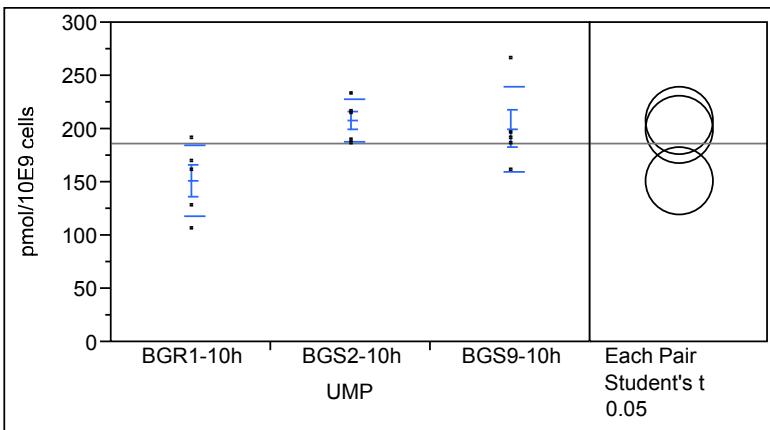
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	260.400	68.259	B	
BGS2-10 h (LB)	5	395.400	37.766	A	0.0136
BGS9-10 h (LB)	5	413.400	101.350	A	0.0066



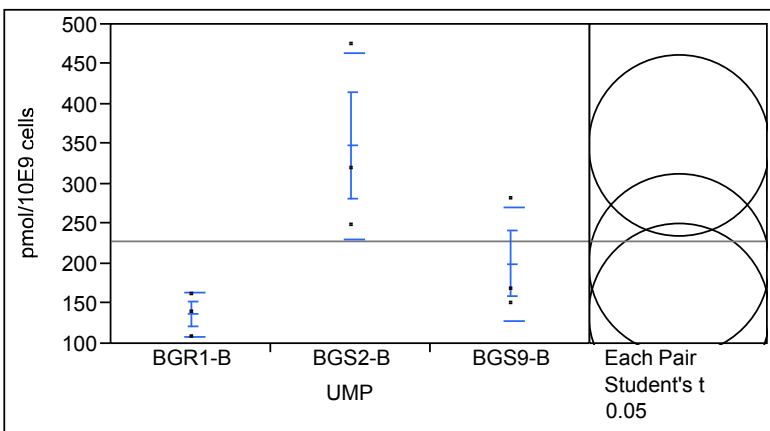
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	617.67	218.482	A	
BGS2-10 h (BLB)	3	1076.67	343.523	A	0.1824
BGS9-10 h (BLB)	3	978.33	501.480	A	0.2810



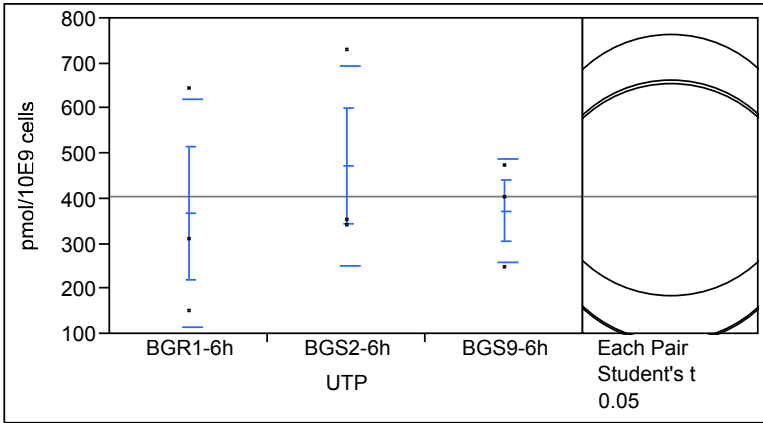
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	123.333	23.1805	A	
BGS2-6 h (LB)	3	119.667	37.1663	A	0.8927
BGS9-6 h (LB)	3	127.333	33.7095	A	0.8830



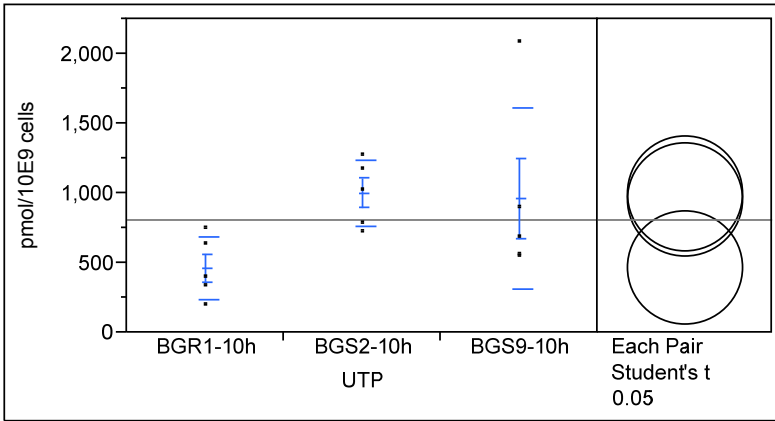
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	151.400	33.7979	B	
BGS2-10 h (LB)	5	208.000	19.6596	A	0.0165
BGS9-10 h (LB)	5	200.400	39.6396	A	0.0329



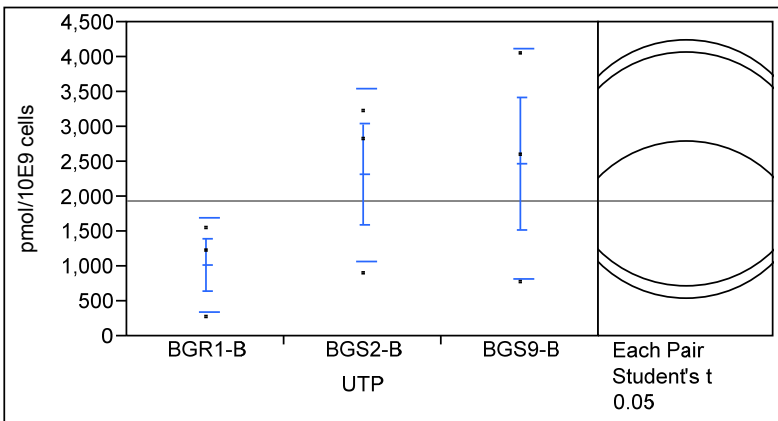
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	137.000	27.221	B	
BGS2-10 h (BLB)	3	348.333	116.432	A	0.0180
BGS9-10 h (BLB)	3	200.667	70.890	AB	0.3688



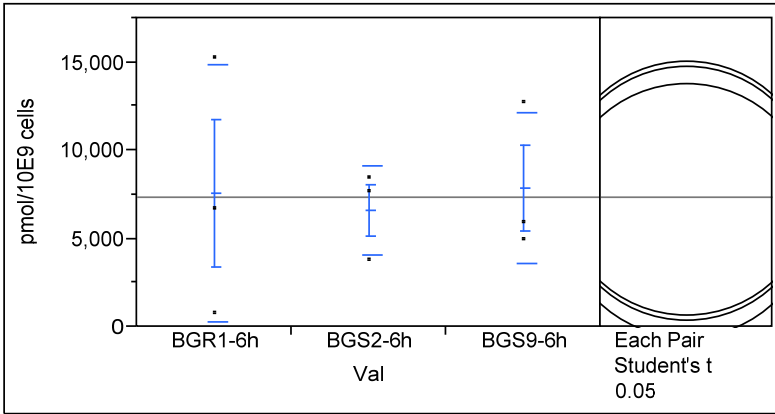
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	368.333	252.603	A	
BGS2-6 h (LB)	3	474.000	220.905	A	0.5511
BGS9-6 h (LB)	3	374.000	115.948	A	0.9741



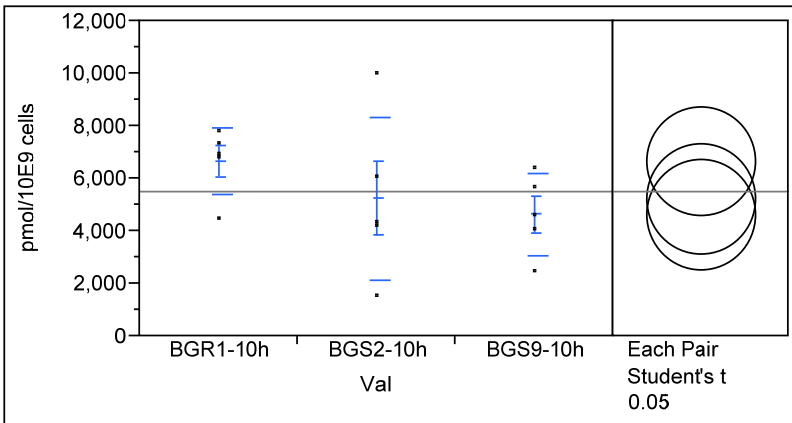
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	466.00	223.231	A	
BGS2-10 h (LB)	5	1000.20	237.370	A	0.0664
BGS9-10 h (LB)	5	960.40	647.257	A	0.0863



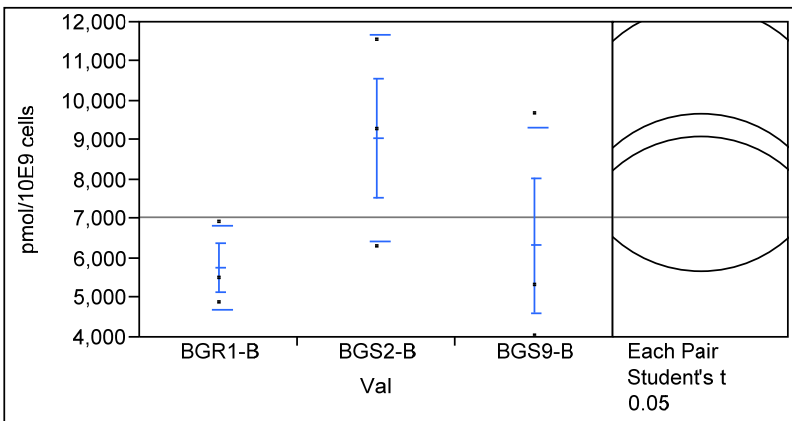
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	1024.33	664.55	A	
BGS2-10 h (BLB)	3	2321.33	1240.99	A	0.2505
BGS9-10 h (BLB)	3	2478.67	1642.27	A	0.2037



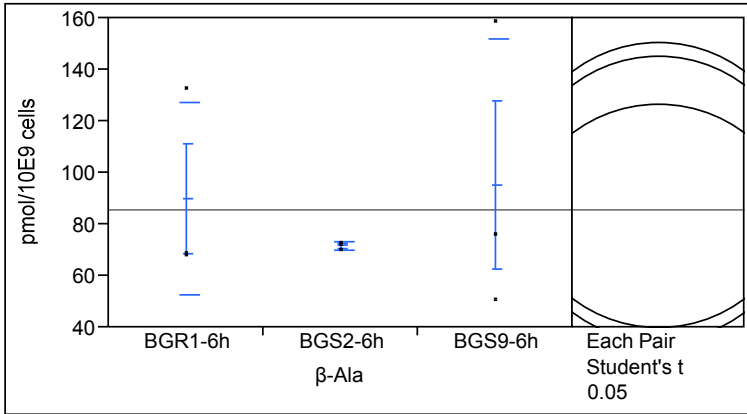
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	7591.00	7290.72	A	
BGS2-6 h (LB)	3	6603.00	2495.84	A	0.8199
BGS9-6 h (LB)	3	7879.00	4268.19	A	0.9470



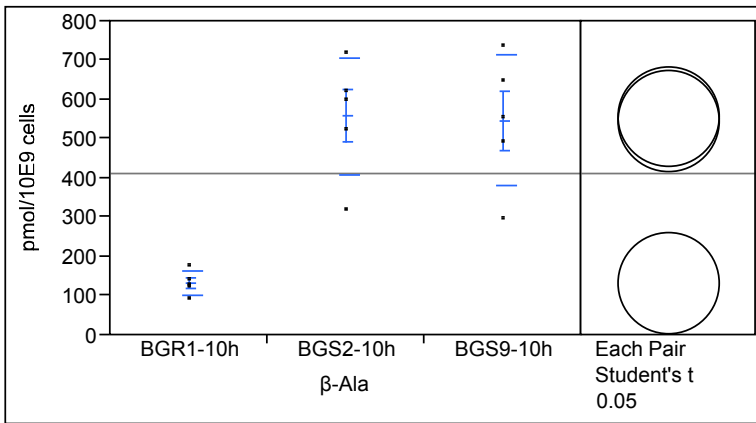
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	6662.20	1278.16	A	
BGS2-10 h (LB)	5	5236.40	3128.30	A	0.3135
BGS9-10 h (LB)	5	4633.40	1535.44	A	0.1603



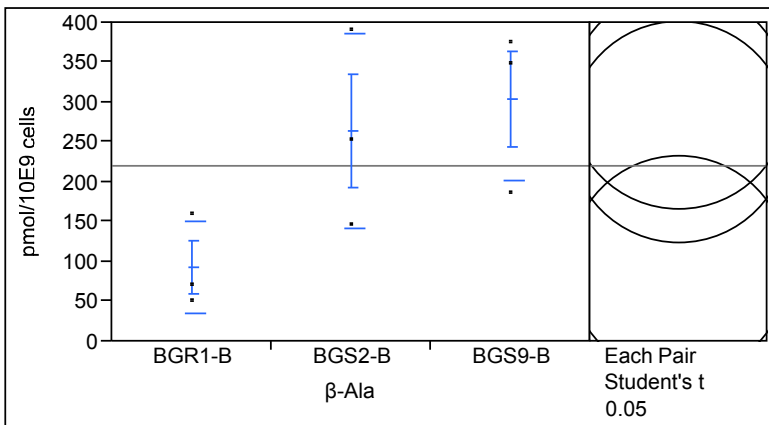
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	5769.00	1063.90	A	
BGS2-10 h (BLB)	3	9051.67	2624.88	A	0.1405
BGS9-10 h (BLB)	3	6349.33	2967.26	A	0.7742



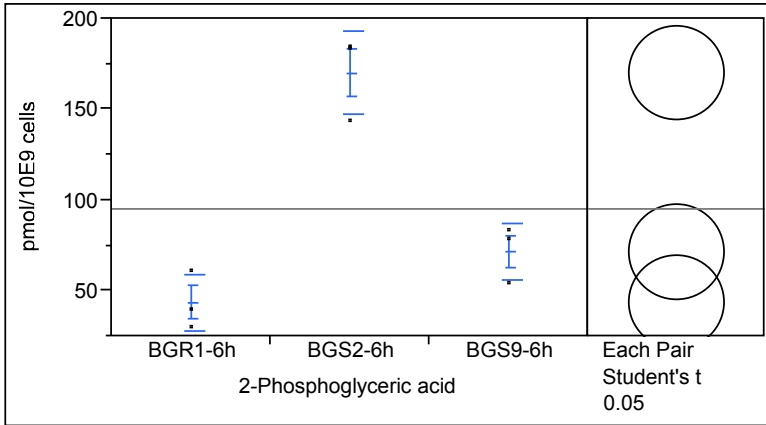
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	90.0000	37.2424	A	
BGS2-6 h (LB)	3	71.6667	1.5275	A	0.5866
BGS9-6 h (LB)	3	95.3333	56.5361	A	0.8728



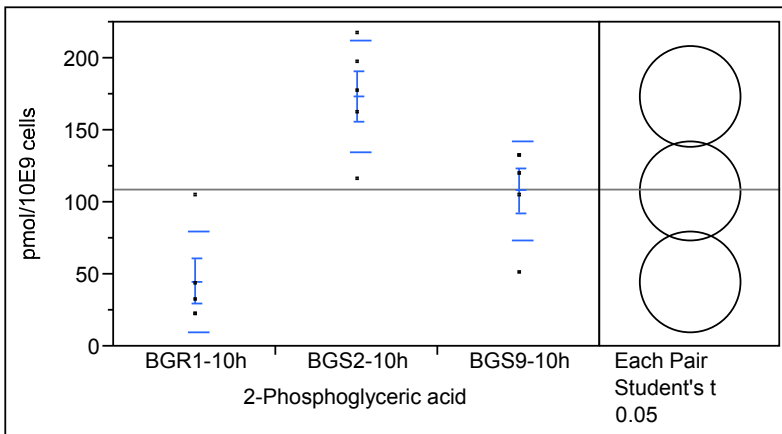
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	133.200	31.276	B	
BGS2-10 h (LB)	5	558.200	149.416	A	0.0002
BGS9-10 h (LB)	5	547.200	167.086	A	0.0003



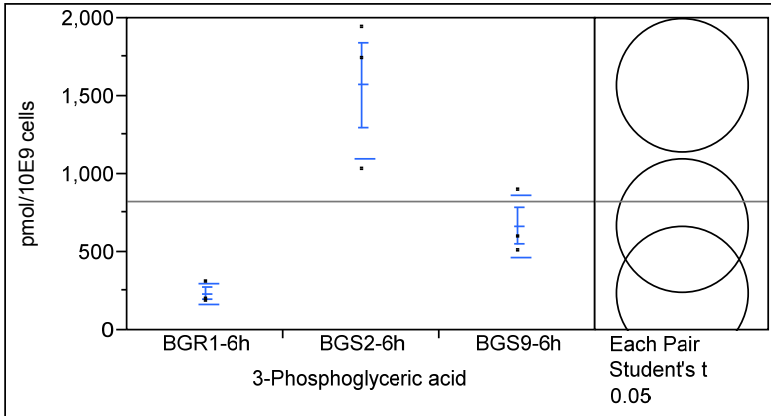
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (BLB)	3	93.667	57.457	B	
BGS2-10 h (BLB)	3	264.000	122.870	AB	0.0777
BGS9-10 h (BLB)	3	304.333	102.442	A	0.0391



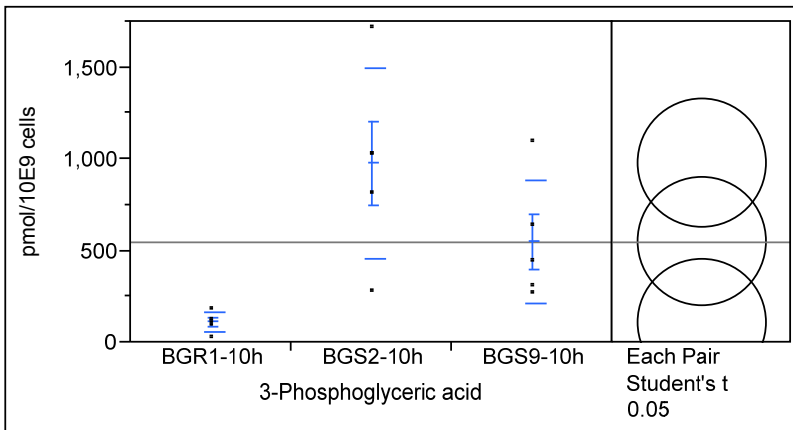
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	43.667	15.8219	B	
BGS2-6 h (LB)	3	170.333	22.8108	A	0.0001
BGS9-6 h (LB)	3	71.667	15.5027	B	0.1110



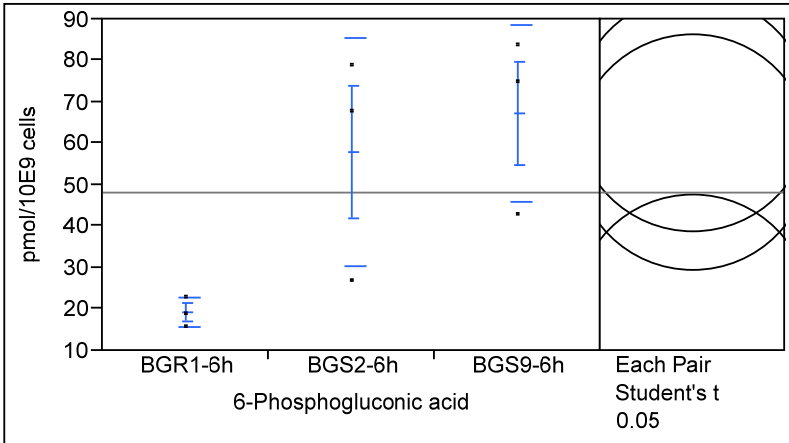
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	45.200	34.6511	C	
BGS2-10 h (LB)	5	174.000	38.5422	A	<.0001
BGS9-10 h (LB)	5	108.200	33.9220	B	0.0165



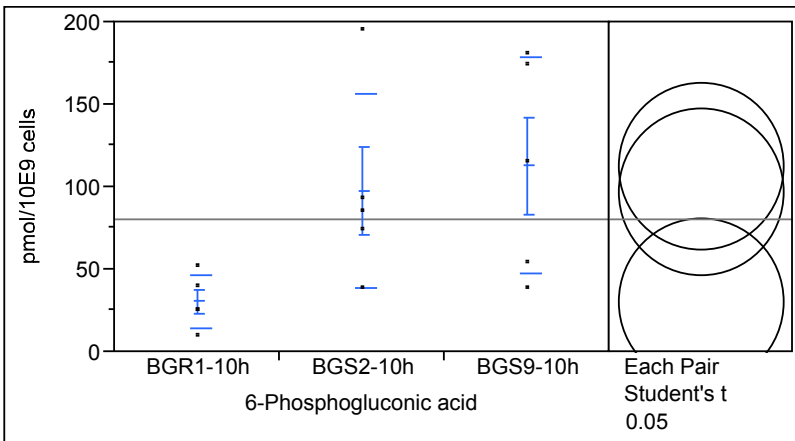
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p -value against control
BGR1-6 h (LB)	3	236.33	69.212	B	
BGS2-6 h (LB)	3	1573.00	477.067	A	0.0016
BGS9-6 h (LB)	3	668.67	202.179	B	0.1299



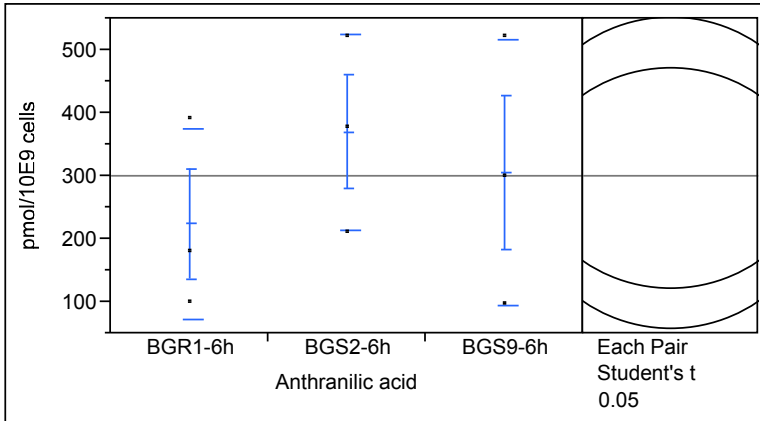
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p -value against control
BGR1-10 h (LB)	5	112.600	55.527	B	
BGS2-10 h (LB)	5	978.200	518.608	A	0.0024
BGS9-10 h (LB)	5	551.600	335.789	AB	0.0765



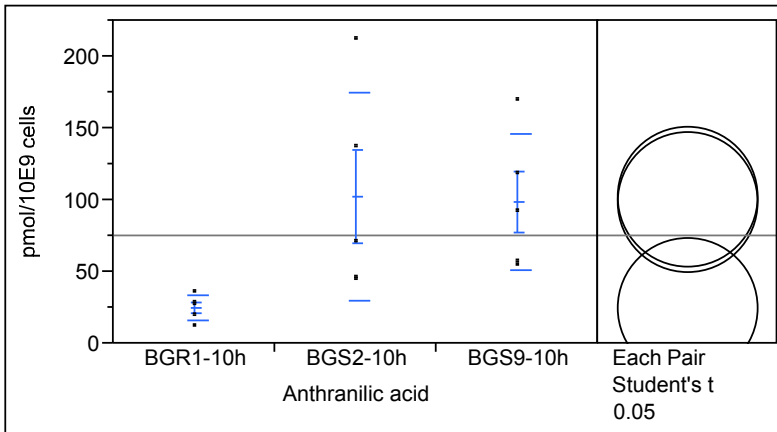
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	19.3333	3.5119	B	
BGS2-6 h (LB)	3	58.0000	27.4044	AB	0.0578
BGS9-6 h (LB)	3	67.3333	21.5484	A	0.0271



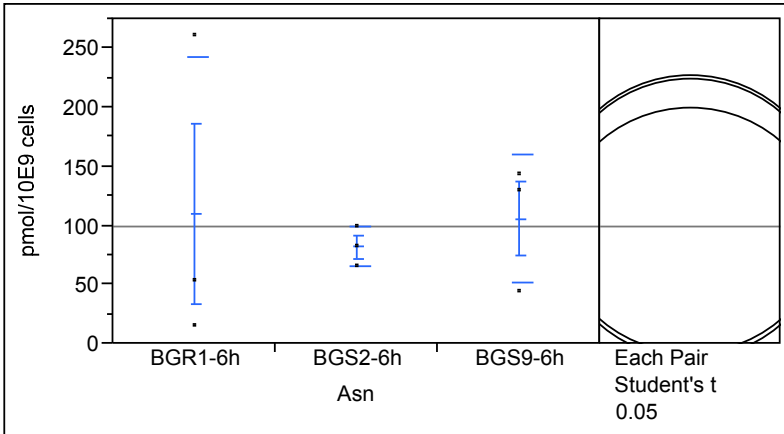
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	30.780	15.9450	B	
BGS2-10 h (LB)	5	97.600	58.7988	AB	0.0639
BGS9-10 h (LB)	5	113.200	65.7967	A	0.0270



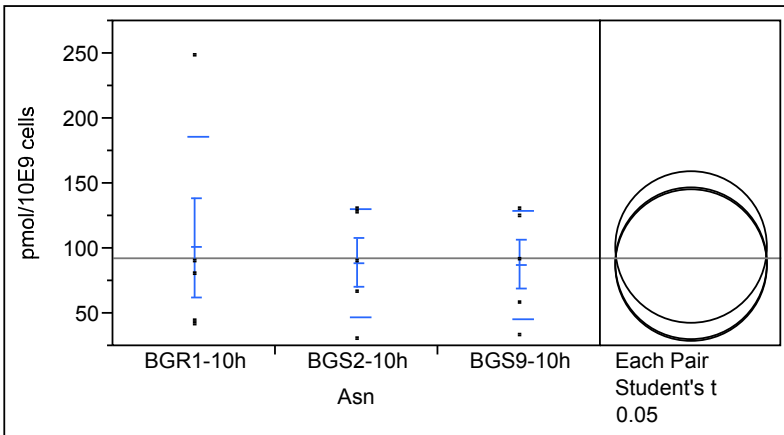
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	<i>p</i> -value against control
BGR1-6 h (LB)	3	224.667	151.302	A	
BGS2-6 h (LB)	3	370.667	155.597	A	0.3463
BGS9-6 h (LB)	3	306.000	211.587	A	0.5899



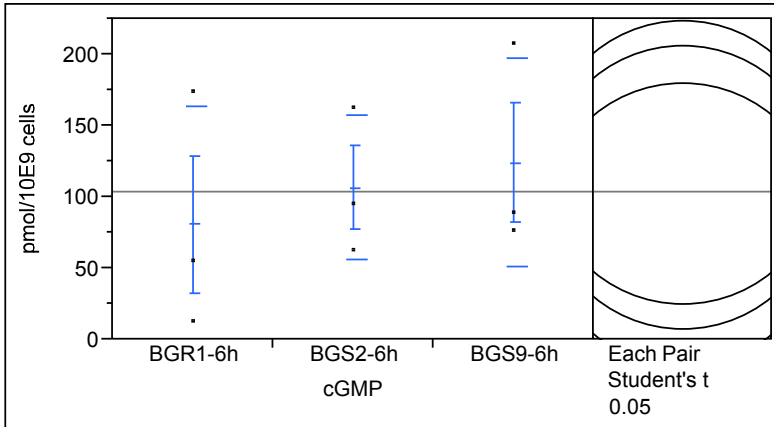
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	<i>p</i> -value against control
BGR1-10 h (LB)	5	25.200	8.8713	B	
BGS2-10 h (LB)	5	102.400	72.0090	A	0.0315
BGS9-10 h (LB)	5	98.800	47.7148	A	0.0387



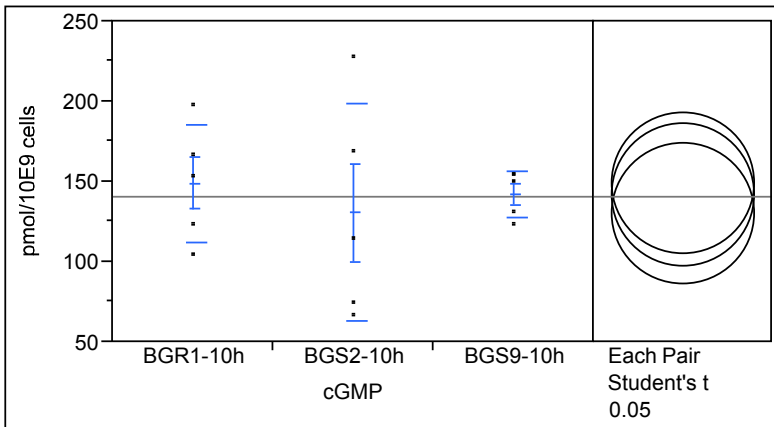
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	110.000	133.000	A	
BGS2-6 h (LB)	3	82.000	17.000	A	0.6955
BGS9-6 h (LB)	3	106.000	54.148	A	0.9551



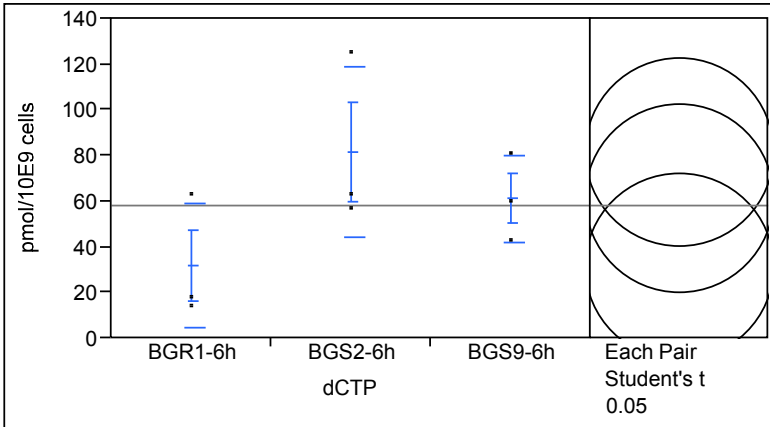
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	101.000	85.4430	A	
BGS2-10 h (LB)	5	89.000	42.1189	A	0.7573
BGS9-10 h (LB)	5	88.000	41.5512	A	0.7379



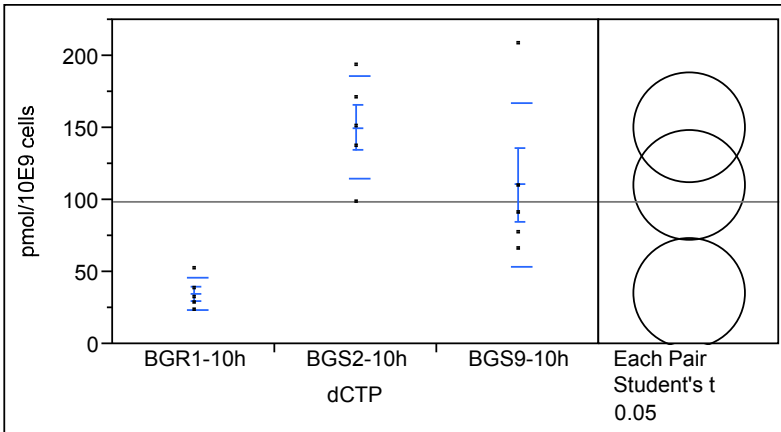
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	80.667	83.5125	A	
BGS2-6 h (LB)	3	106.667	50.5206	A	0.6664
BGS9-6 h (LB)	3	124.333	72.7484	A	0.4755



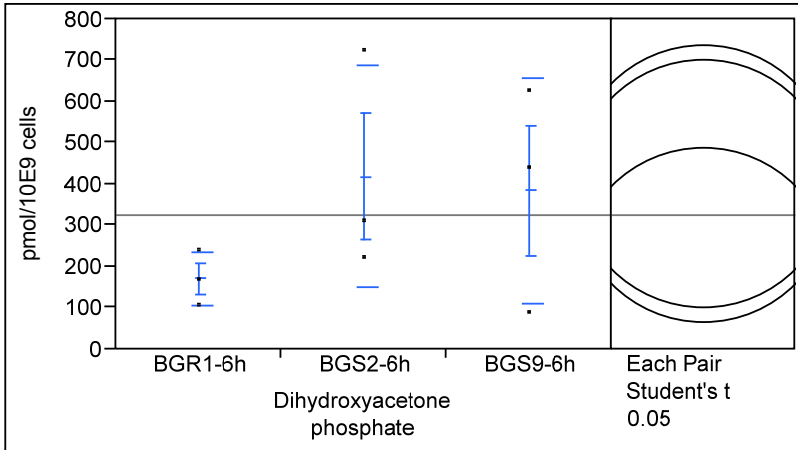
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	149.200	36.5814	A	
BGS2-10 h (LB)	5	130.600	67.7739	A	0.5279
BGS9-10 h (LB)	5	142.400	14.4326	A	0.8162



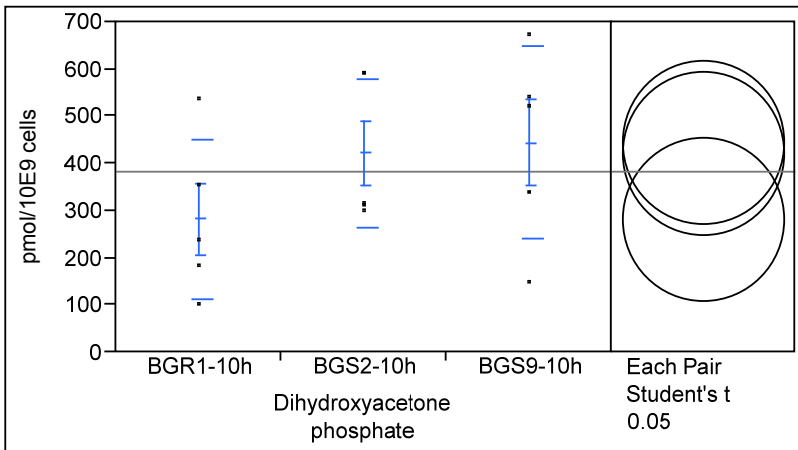
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	31.6667	27.2091	A	
BGS2-6 h (LB)	3	81.6667	37.6475	A	0.0791
BGS9-6 h (LB)	3	61.3333	19.0351	A	0.2566



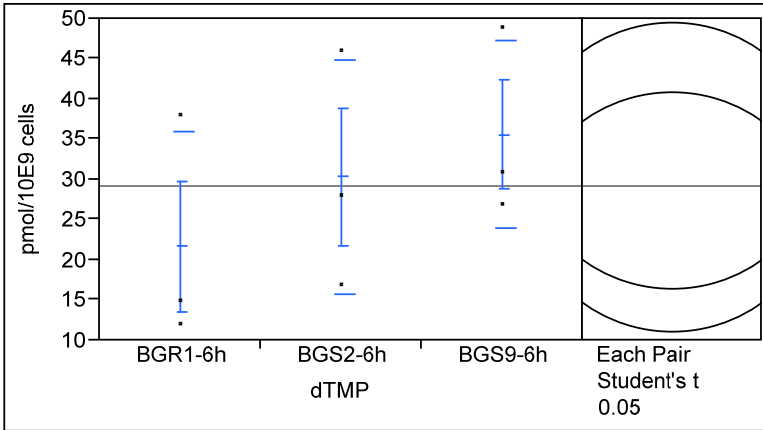
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	35.400	11.2383	B	
BGS2-10 h (LB)	5	150.600	35.7813	A	0.0006
BGS9-10 h (LB)	5	110.800	57.2687	A	0.0107



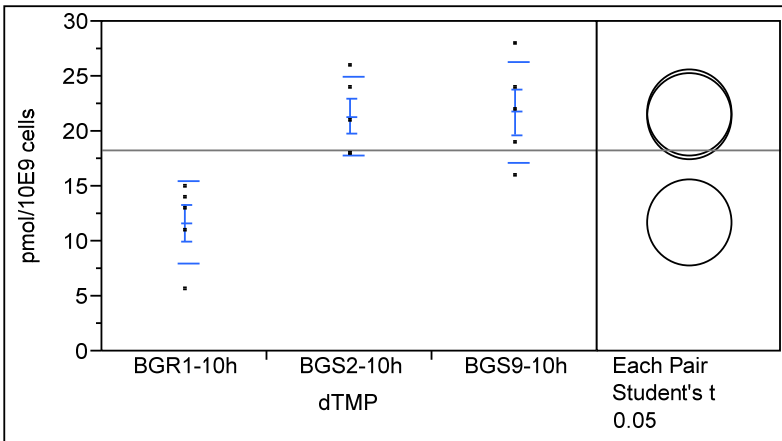
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	171.667	66.040	A	
BGS2-6 h (LB)	3	419.667	268.398	A	0.2246
BGS9-6 h (LB)	3	385.333	273.134	A	0.2877



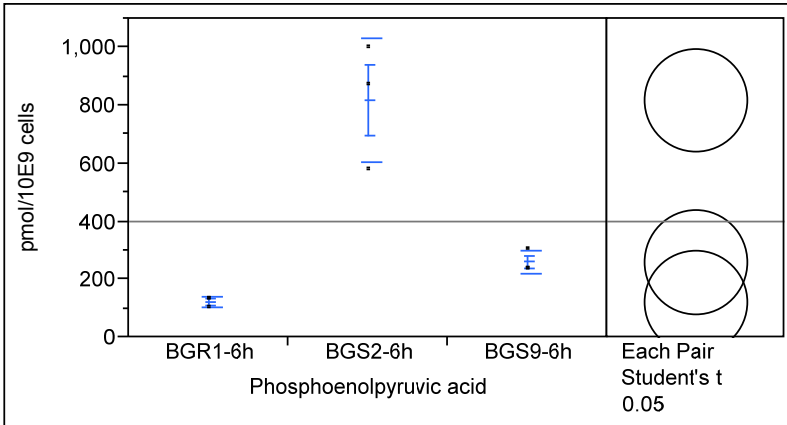
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	283.000	168.901	A	
BGS2-10 h (LB)	5	422.000	155.751	A	0.2392
BGS9-10 h (LB)	5	444.800	204.114	A	0.1749



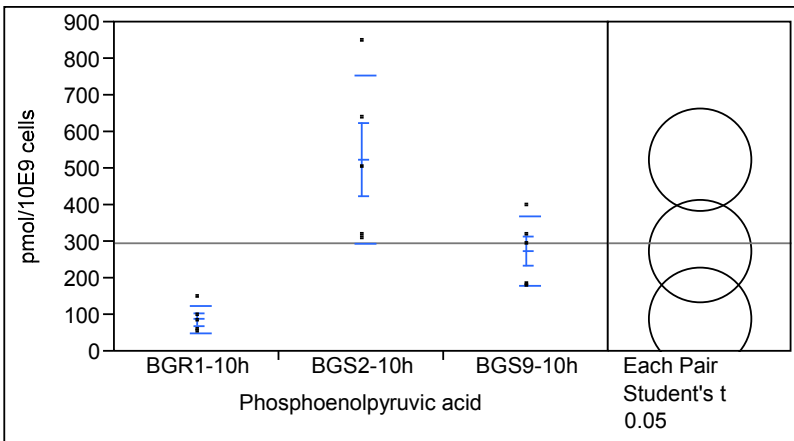
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	21.6667	14.2244	A	
BGS2-6 h (LB)	3	30.3333	14.6401	A	0.4644
BGS9-6 h (LB)	3	35.6667	11.7189	A	0.2539



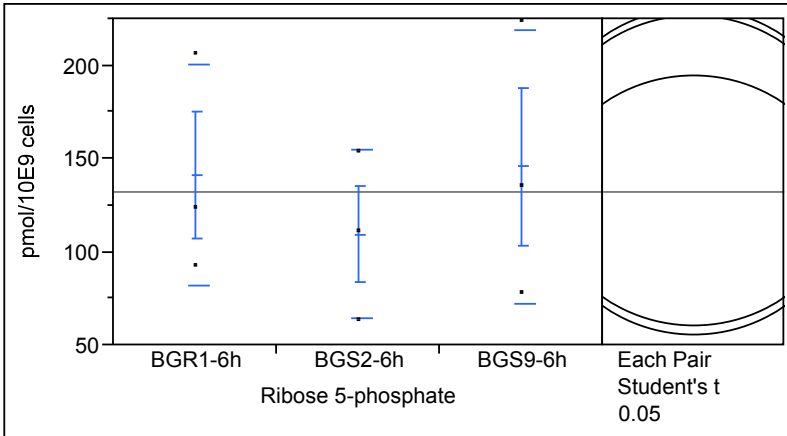
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	11.7200	3.72720	B	
BGS2-10 h (LB)	5	21.4000	3.57771	A	0.0024
BGS9-10 h (LB)	5	21.8000	4.60435	A	0.0018



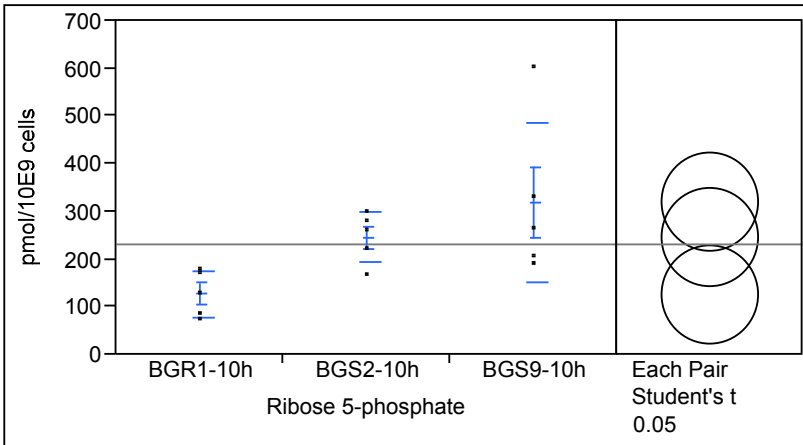
Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	122.000	18.193	B	
BGS2-6 h (LB)	3	819.000	215.237	A	0.0005
BGS9-6 h (LB)	3	260.000	37.242	B	0.2301



Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	89.200	38.252	B	
BGS2-10 h (LB)	5	525.000	227.824	A	0.0004
BGS9-10 h (LB)	5	275.400	92.967	B	0.0631



Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-6 h (LB)	3	141.333	58.9435	A	
BGS2-6 h (LB)	3	109.667	45.0148	A	0.5438
BGS9-6 h (LB)	3	146.000	73.5119	A	0.9276



Strain	Number of replicates	Mean	Standard deviation	Connecting Letters	p-value against control
BGR1-10 h (LB)	5	128.200	48.597	B	
BGS2-10 h (LB)	5	246.400	52.061	AB	0.1025
BGS9-10 h (LB)	5	319.000	168.699	A	0.0145

Fig. S5. Statistical analysis of differences in the levels of intracellular metabolites. Metabolite levels in the wild-type BGR1, the *tofI* mutant BGS2, and the *qsmR* mutant BGS9 grown in LB broth or LB broth (BLB) supplemented with 100 mM HEPES for 6 or 10 h were measured by capillary electrophoresis time-of-flight mass spectrometry. The metabolites measured were as follows. 3-Hydroxybutyric acid, divalent Acetyl CoA, Adenine, Adenosine, ADP, Ala, AMP, Arg, Asp, ATP, Betaine, cAMP, CDP, Choline, Citric acid, Citrulline, CMP, CTP, Cytidine, Cytosine, dATP, dTDP, dTTP, Fructose 6-phosphate, GABA, GDP, Gln, Glu, Gluconic acid, Glucose 1-phosphate, Glucose 6-phosphate, divalent Glutathione (GSSG), Gly, Glycerol 3-phosphate, Glyoxylic acid, GMP, GTP, Guanosine, His, Homoserine, Hypoxanthine, Ile, Lactic acid, Leu, Lys, Malic acid, NAD⁺, NADP⁺, Ornithine, Phe, Pro, Putrescine, Ribulose 5-phosphate, Sedoheptulose 7-phosphate, Ser, Succinic acid, Thr, Trp, Tyr, UDP, UMP, UTP, Val, β -Ala, 2-Phosphoglyceric acid, 3-Phosphoglyceric acid, 6-Phosphogluconic acid, Anthranilic acid, Asn, cGMP, dCTP, Dihydroxyacetone phosphate, dTMP, Phosphoenolpyruvic acid, and Ribose 5-phosphate.

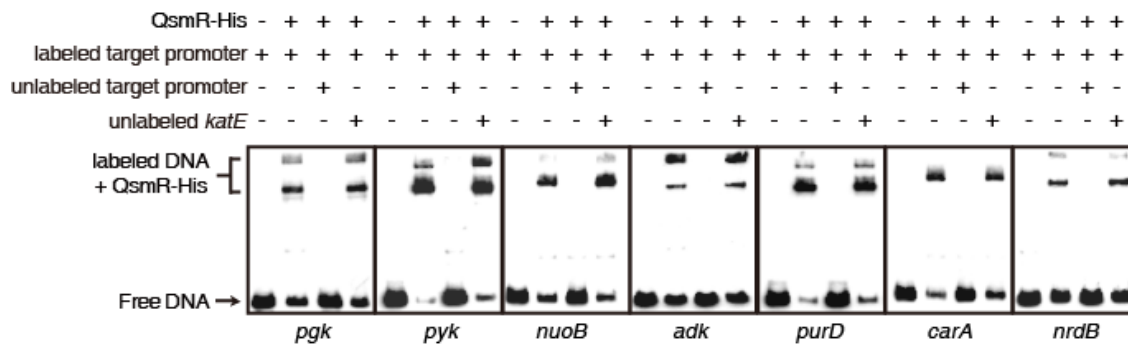


Fig. S6. Direct binding of QsmR to the promoter regions of the *pgk*, *pyk*, *nuoB*, *adk*, *purD*, *carA*, and *nrdB* genes.

SI References

1. Kim J, et al. (2004) Quorum sensing and the LysR-type transcriptional activator ToxR regulate toxoflavin biosynthesis and transport in *Burkholderia glumae*. *Mol Microbiol* 54(4):921-934.
2. Herzberg O, et al. (1996) Swiveling-domain mechanism for enzymatic phosphotransfer between remote reaction sites. *Proc Natl Acad Sci USA* 93(7):2652-2657.
3. Kim J, et al. (2007) Regulation of polar flagellum genes is mediated by quorum sensing and FlhDC in *Burkholderia glumae*. *Mol Microbiol* 64(1):165-179.