Phytotitre natural product extract library screen

Sample data from screen for inhibitors of proliferation of *Escherichia coli*

Data terms of use:

- These data are provided for research purposes only
- No health benefits of any screened extracts are claimed or implied
- The *Phytotitre* library is provided for *in vitro* research only

Experimental procedure:

- An overnight culture of *Escherichia coli* (*E. coli*) was grown to plateau phase
- An aliquot of the overnight culture was diluted 1:200 in sterile Luria broth (LB)
- 1.5 µl of each extract from the *Phytotitre* library, or DMSO as vehicle control, were pipetted into individual wells of a sterile 96-well microplate
- All wells in the first column received DMSO control, columns 2-11 received extracts, and column 12 received bacteria only without DMSO or extracts
- 148.5 µl of 1:200 diluted *E. coli* culture was added to each well
- Identical triplicates of each plate were prepared
- Absorbance was measured at 595 nm using a microplate reader immediately after plating to enable background correction for absorbance related to pigments in extracts
- Plates were transferred to a shaking incubator at 37^{o}C
- Absorbance at 595 nm was measured at 8 h and 21 h after start of incubation

Notes:

- Bacterial growth is proportional to absorbance measured at 595 nm
- Extracts were tested at 1:100 dilution (1%) to minimise excessive occurrence of hits
- Results were background corrected by subtracting the absorbance of each individual well measured at t=0 to account for the effects of pigments present in extracts
- In the following charts, dark green bars represent 1% DMSO control cultures (8 per plate), blue bars are cultures with 1% plant extracts, light green bars are cultures with no DMSO or extract (8 per plate), red bars are those which showed >30% reduction in bacterial growth compared to mean of DMSO control cultures
- Error bars represent standard deviation (SD) of cultures in three independent plates
- The numbers below each chart indicate the extract reference IDs (001 - 800)
- Results are expressed as % growth compared to mean of DMSO controls

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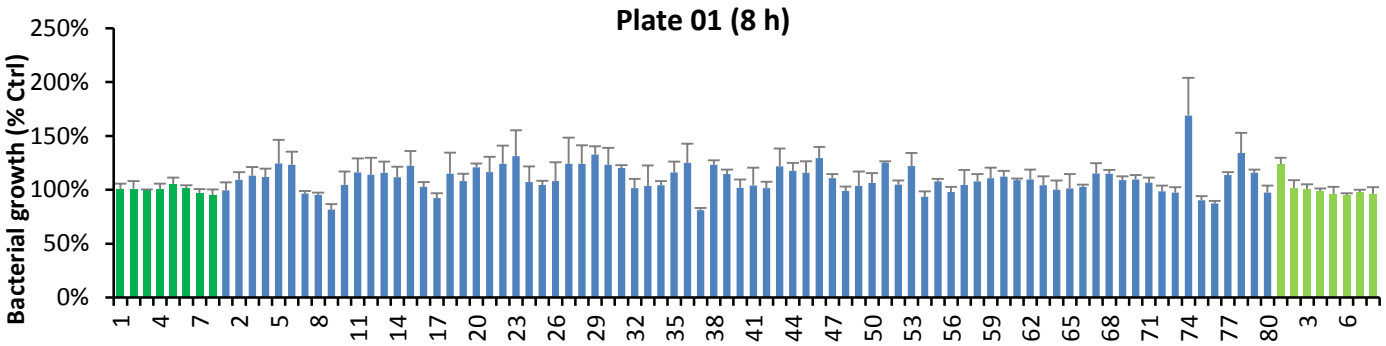
Plate 01 (8 h)
Bacterial growth (% Ctrl)
250%
200%
150%
100%
50%
0%
1 4 7 2 5 8 11 14 17 20 23 26 29 32 35 38 41 44 47 50 53 56 59 62 65 68 71 74 77 80 3 6

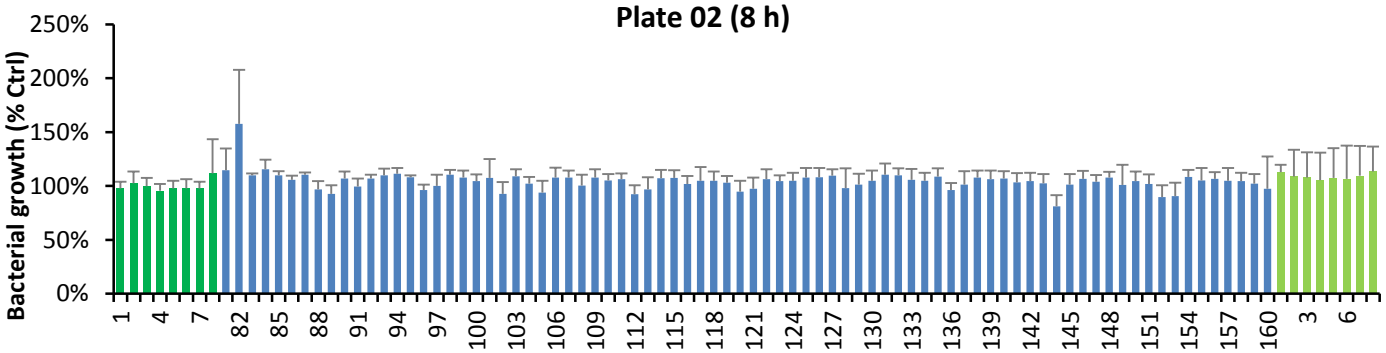
Plate 02 (8 h)
Bacterial growth (% Ctrl)
250%
200%
150%
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1 4 7 82 85 88 91 94 97 100 103 106 109 112 115 118 121 124 127 130 133 136 139 142 145 148 151 154 157 160 3 6

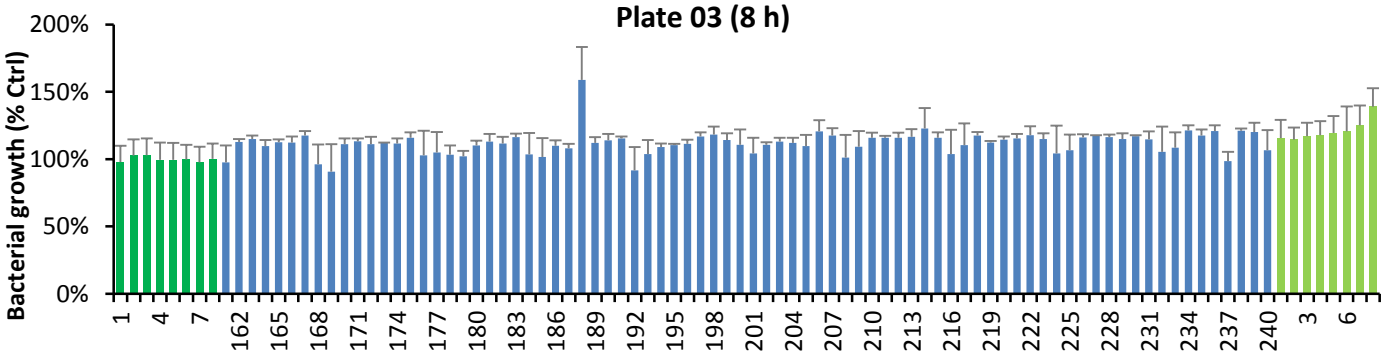
Plate 03 (8 h)
Bacterial growth (% Ctrl)
200%
150%
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50%
0%
1 4 7 162 165 168 171 174 177 180 183 186 189 192 195 198 201 204 207 210 213 216 219 222 225 228 231 234 237 240 3 6

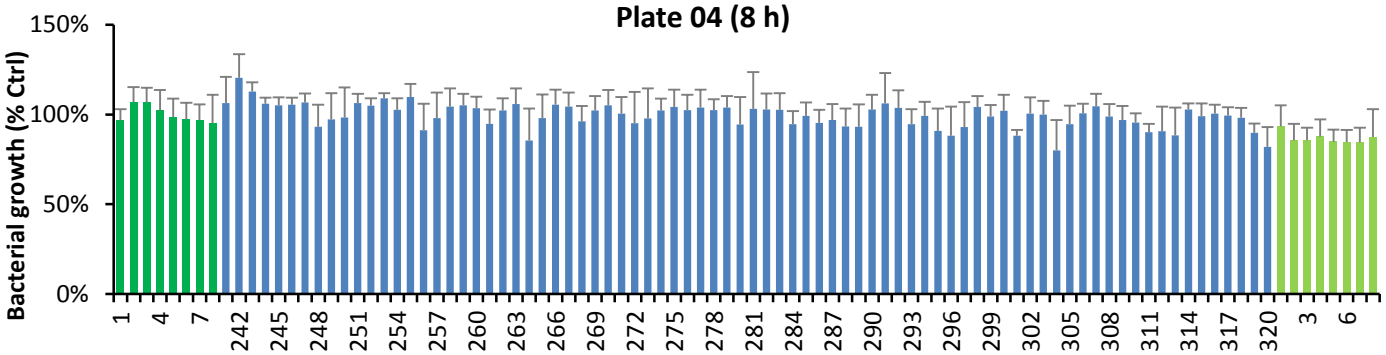
Plate 04 (8 h)
Bacterial growth (% Ctrl)
150%
100%
50%
0%
1 4 7 242 245 248 251 254 257 260 263 266 269 272 275 278 281 284 287 290 293 296 299 302 305 308 311 314 317 320 3 6

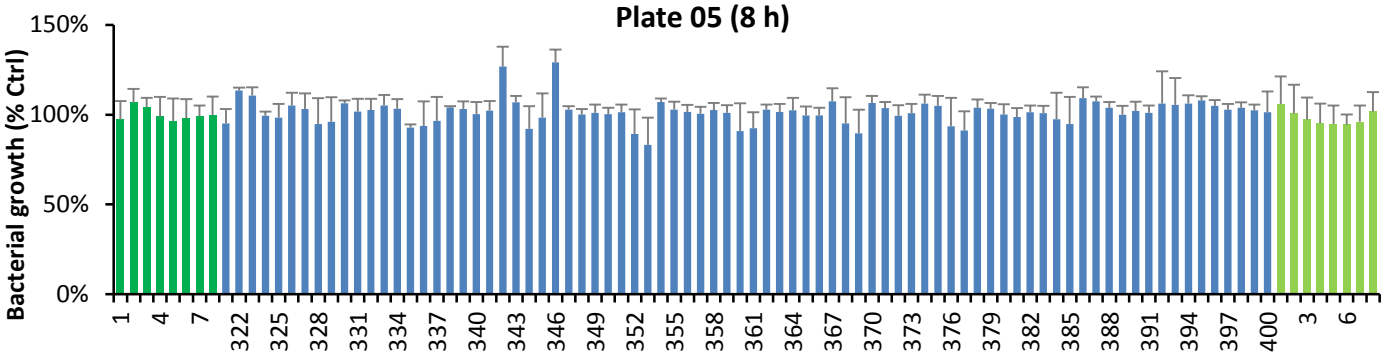
Plate 05 (8 h)
Bacterial growth (% Ctrl)
150%
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1 4 7 322 325 328 331 334 337 340 343 346 349 352 355 358 361 364 367 370 373 376 379 382 385 388 391 394 397 400 3 6

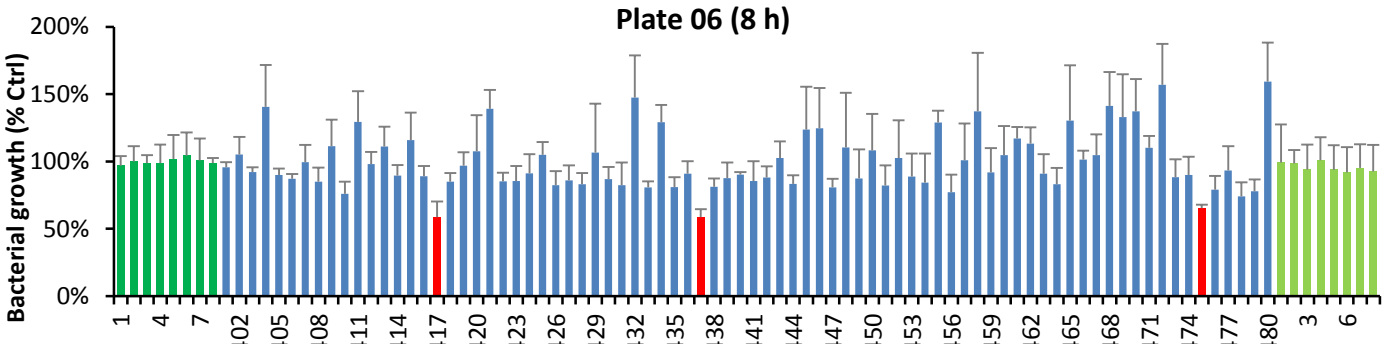
Plate 06 (8 h)
Bacterial growth (% Ctrl)
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1 4 7 402 405 408 411 414 417 420 423 426 429 432 435 438 441 444 447 450 453 456 459 462 465 468 471 474 477 480 3 6

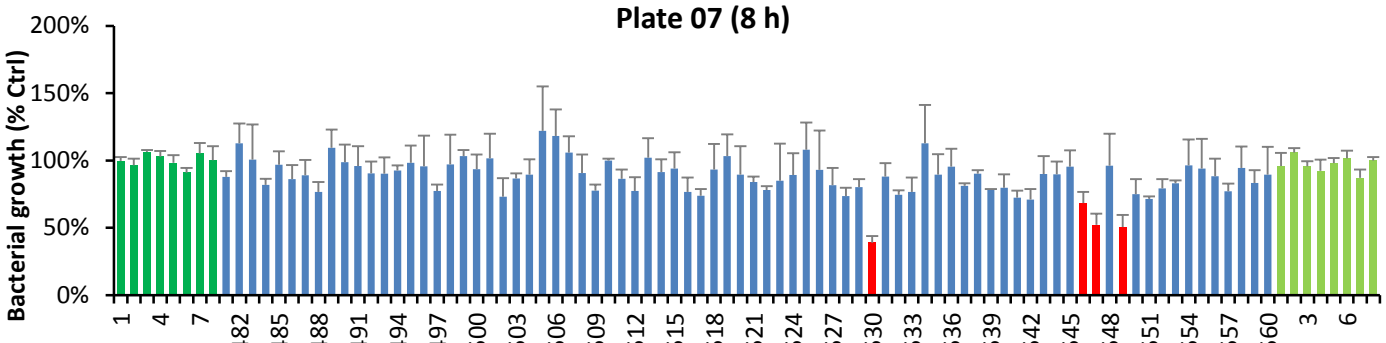
Plate 07 (8 h)
Bacterial growth (% Ctrl)
200%
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1 4 7 482 485 488 491 494 497 500 503 506 509 512 515 518 521 524 527 530 533 536 539 542 545 548 551 554 557 560 3 6

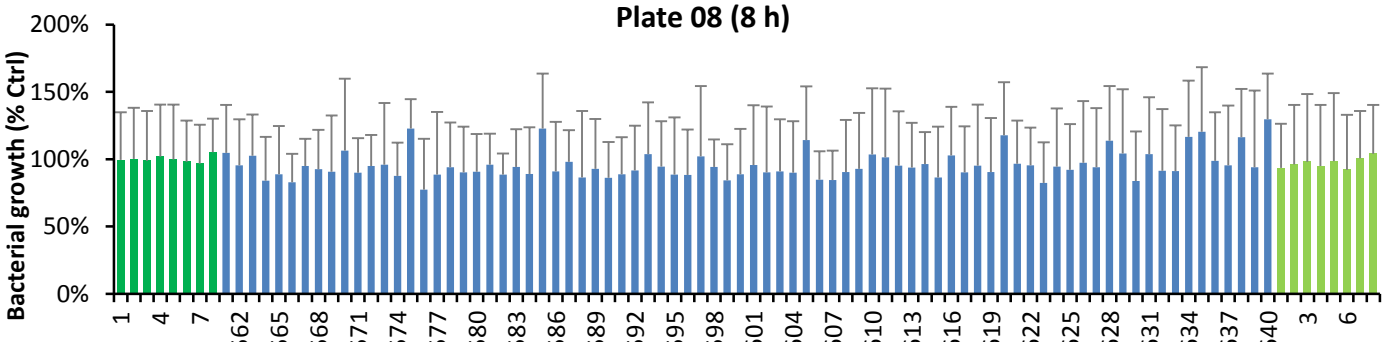
Plate 08 (8 h)
Bacterial growth (% Ctrl)
200%
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1 4 7 562 565 568 571 574 577 580 583 586 589 592 595 598 601 604 607 610 613 616 619 622 625 628 631 634 637 640 3 6

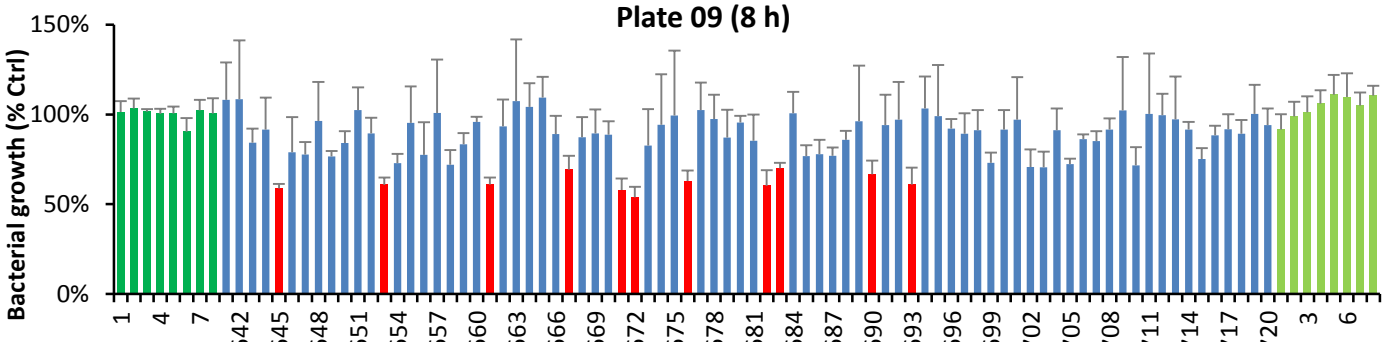
Plate 09 (8 h)
Bacterial growth (% Ctrl)
150%
100%
50%
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1 4 7 642 645 648 651 654 657 660 663 666 669 672 675 678 681 684 687 690 693 696 699 702 705 708 711 714 717 720 3 6

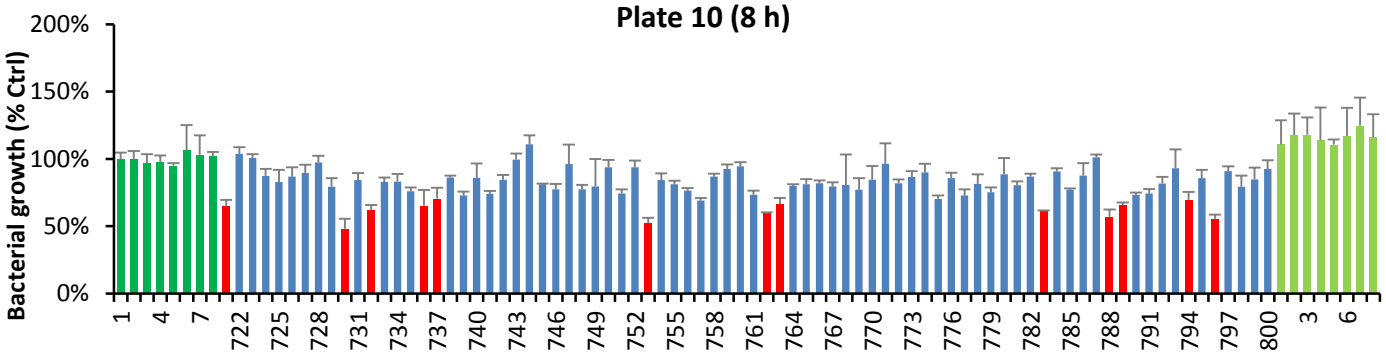
Plate 10 (8 h)
Bacterial growth (% Ctrl)
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1 4 7 722 725 728 731 734 737 740 743 746 749 752 755 758 761 764 767 770 773 776 779 782 785 788 791 794 797 800 3 6

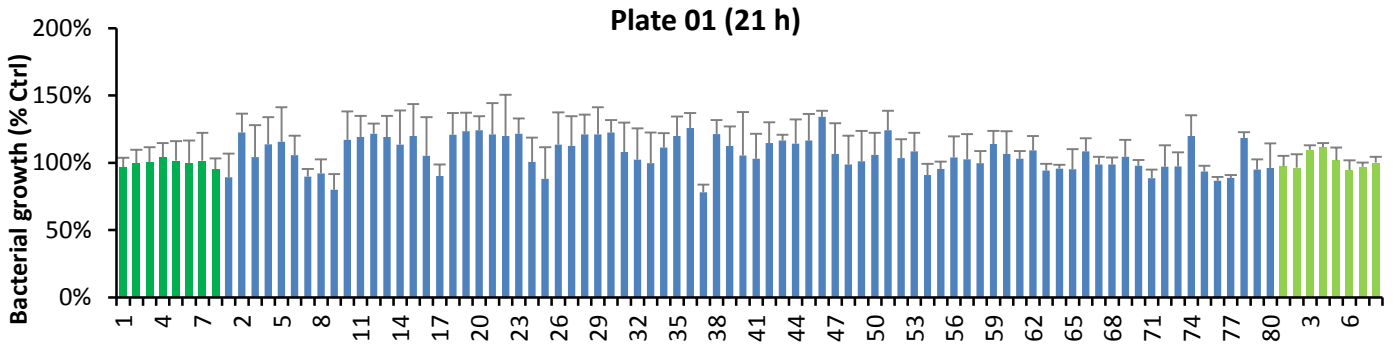
Plate 01 (21 h)
Bacterial growth (% Ctrl)
200%
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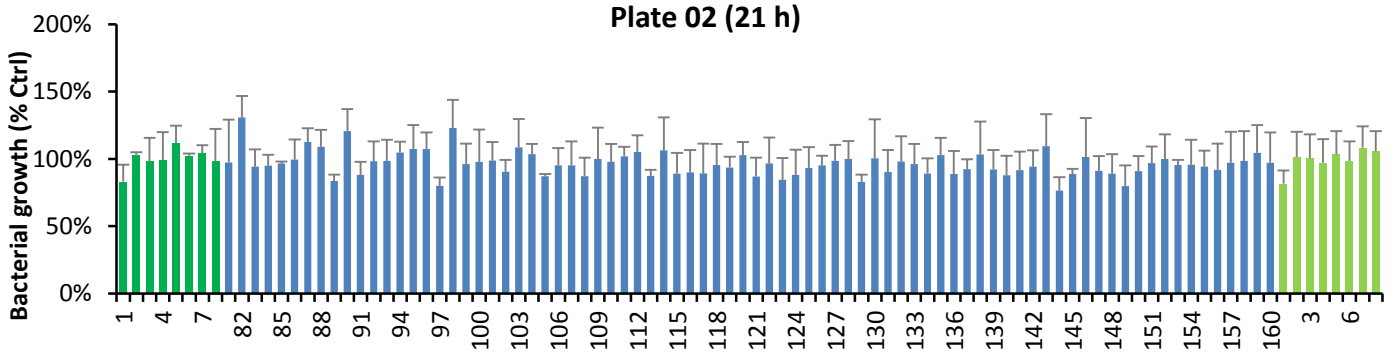
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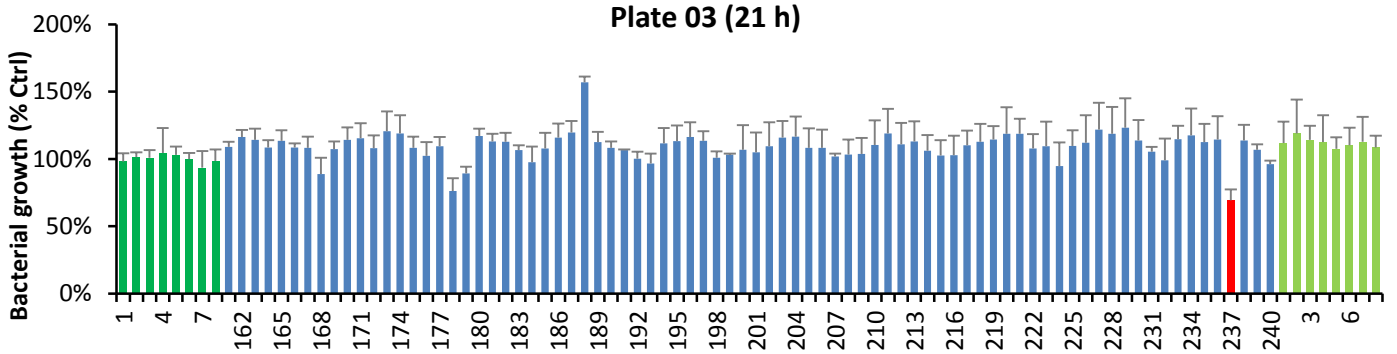
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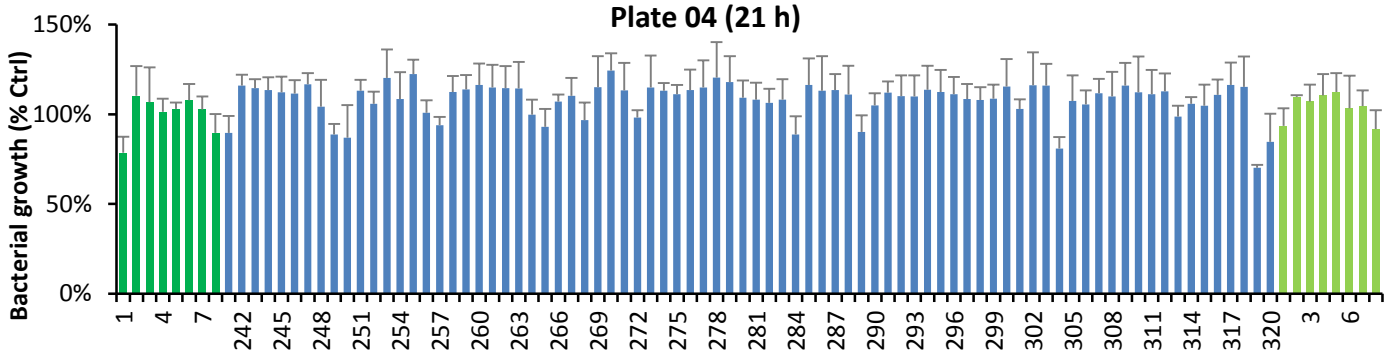
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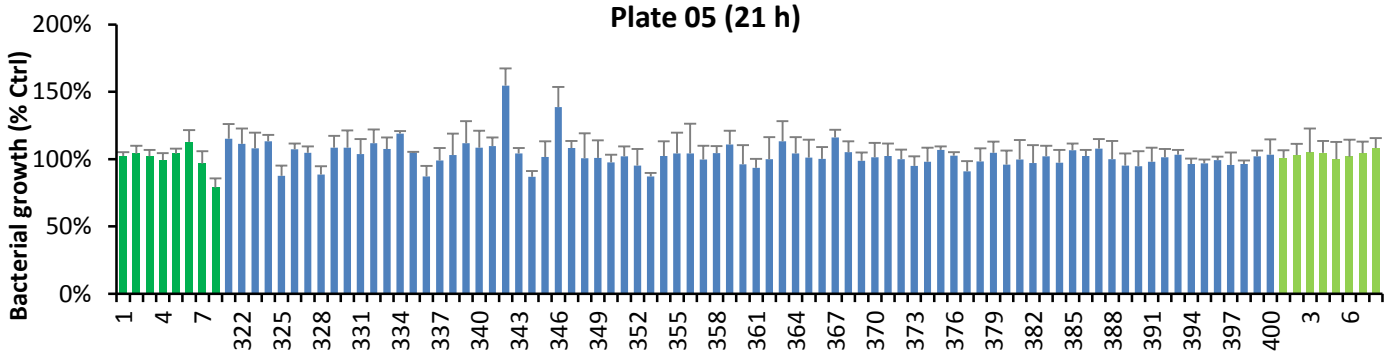
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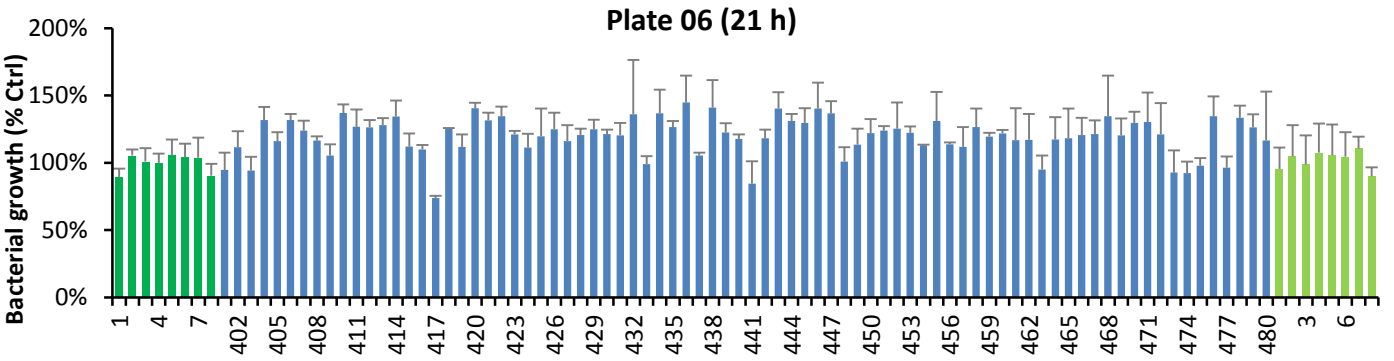
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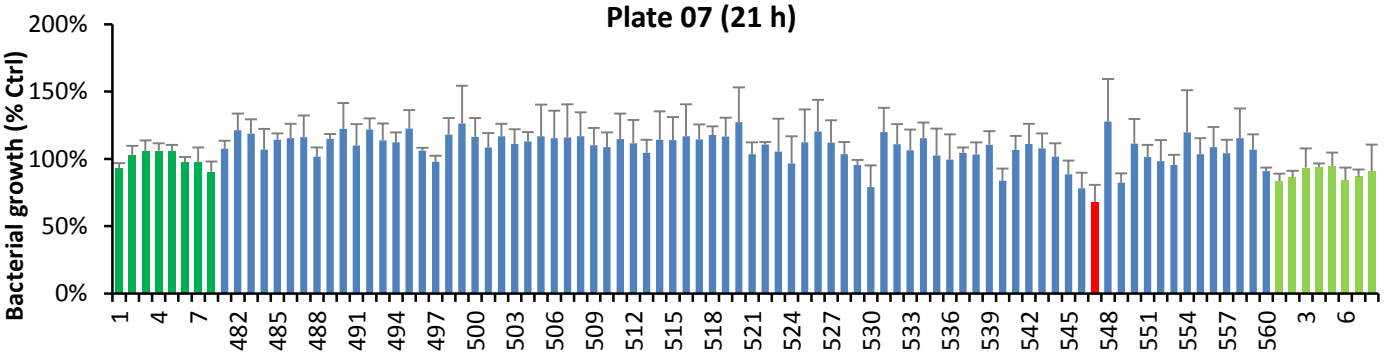
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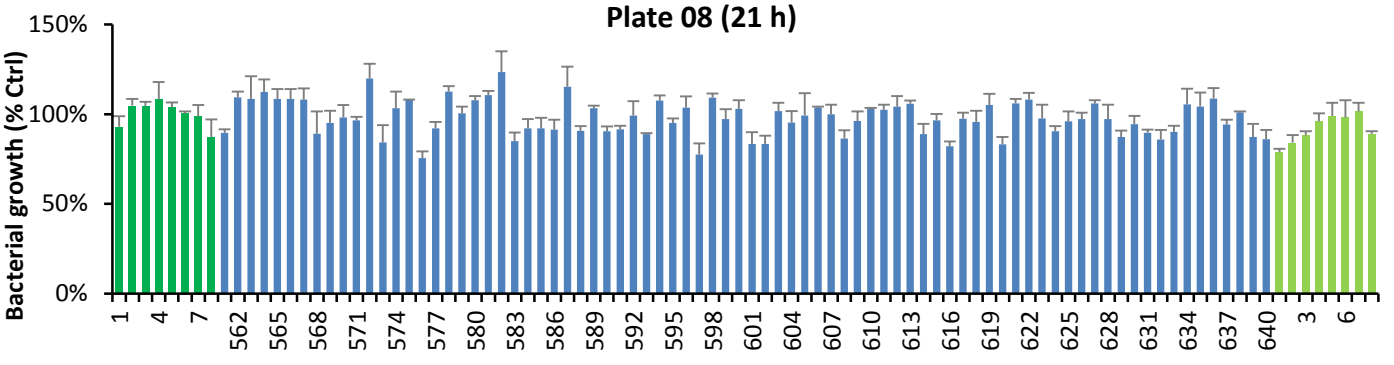
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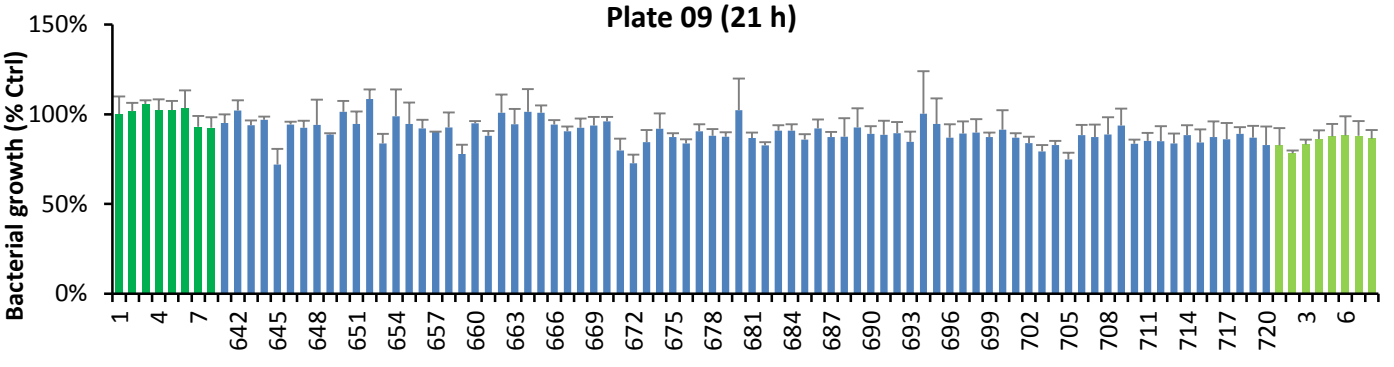
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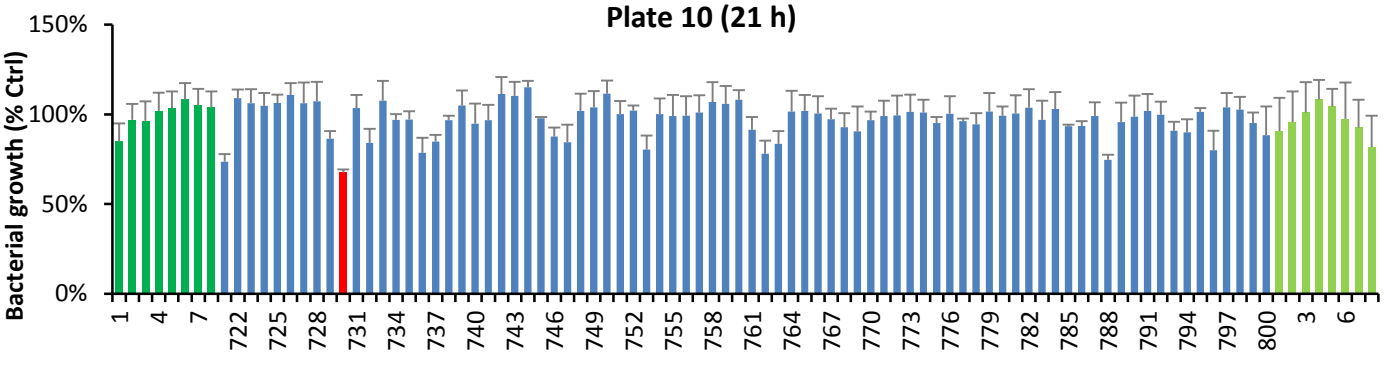
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