# Supplementary File 1

### Inoculation growth medium LB

|  |  |
| --- | --- |
| Component | Concentration [g/l] |
| Tryptone | 10 |
| Yeast Extract | 5 |
| NaCl | 5 |

### Chemostat batch phase growth medium ‘Def4m’

|  |  |
| --- | --- |
| Component | Concentration [g/l] |
| Yeast extract | 0.500 |
| KH2PO4 | 0.648 |
| (NH4)2HPO4 | 2.750 |
| Citric acid\*H2O | 0.900 |
| Fe(II) citrate hydrate | 0.0204 |
| H3BO3 | 0.00105 |
| MnCl2\*4H2O | 0.005 |
| EDTA\*2H2O | 0.0042 |
| CuCl\*2H20 | 0.0000525 |
| Na2Mo4O4\*2H2O | 0.000875 |
| CoCl2\*6H2O | 0.000875 |
| Zn(CH3COO)2\*2H2O | 0.0026 |
| NaCl | 2.000 |
| MgSO4 | 0.616 |
| Clerol (antifoam) | 0.400 |
| Carbon source (fructose OR glycerol) | 40.0 |
| Water | (tap water) |

MgSO4, clerol and carbon source solutions were autoclaved separately and added directly to the fermenter.

### Chemostat fully defined growth medium ‘Def4’

|  |  |
| --- | --- |
| Component | Concentration [g/l] |
| KH2PO4 | 0.648 |
| (NH4)2HPO4 | 2.750 |
| Citric acid\*H2O | 0.900 |
| Fe(II) citrate hydrate | 0.0204 |
| H3BO3 | 0.00105 |
| MnCl2\*4H2O | 0.005 |
| EDTA\*2H2O | 0.0042 |
| CuCl\*2H20 | 0.0000525 |
| Na2Mo4O4\*2H2O | 0.000875 |
| CoCl2\*6H2O | 0.000875 |
| Zn(CH3COO)2\*2H2O | 0.0026 |
| NaCl | 2.000 |
| MgSO4 | 0.616 |
| Clerol (antifoam) | 0.400 |
| Carbon source (fructose OR glycerol) | 40.0 |
| Water | (tap water) |

MgSO4, clerol and carbon source solutions were autoclaved separately and added directly to the fermenter.

### Sampling for analysis of remaining carbon source

* Add 0.4 ml 0.6M perchloric acid to 1.5 ml Eppendorf tube
* Sample 0.6 ml culture to the 1.5 ml tube and mix with pipette
* Freeze at -20°C until HPLC analysis
* Centrifuge at 14 000 rpm for 10 mins
* Filter supernatant through 0.22 µm syringe filter

### Sampling for alginate analysis

* Sample 1.8ml culture to 2ml tube
* Centrifuge at 14 000 rpm for 15 mins
* Transfer 1000 µl supernatant to a new 1.5ml tube.
* Add 33µl 3M NaOH
* Freeze at -20°C until analysis

### Sampling for transcriptome analysis

* Add 4 x 40ml ice-cold 0.9% NaCl to 4 x sterile 50ml tubes on ice.
* Add 4 x 2ml culture to the 4 x 50ml tubes above. Invert tubes to mix.
* Centrifuge at 6000 G for 6 mins, 5°C
* Remove supernatant (remove last drops with Q-tips)
* Resuspend pellets in 4 x 2ml ice-cold 0.9% NaCl
* Add 4 x 2ml RNA Protect Bacteria Reagent (Qiagen, Germany)
* Combine two and two tubes with culture + RNA Protect into one 50 ml tube (2 x 4 ml).
* Incubate statically 5 min at room temperature
* Centrifuge at 3200 G for 10 min, 20°C
* Remove supernatant (remove last drops with Q-tips)
* Freeze pellet at -80°C