

Materials List for:

# Cell-free Protein Expression Using the Rapidly Growing Bacterium *Vibrio natriegens*

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URL: <https://www.jove.com/video/59495>

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## Materials

| Name   | Company          | Catalog Number | Comments |
|--|------------------|----------------|----------|
| 15 mL Tubes  | Corning          | 352196         |          |
| 2 mL Tubes   | Eppendorf        | 22363352       |          |
| 384-well Black Assay Plates                                  | Corning          | 3544           |          |
| 384-well PCR Plates  | Eppendorf        | 951020702      |          |
| 50 mL Tubes  | Corning          | 352070         |          |
| 96-well PCR Plates   | Eppendorf        | 30129300       |          |
| Adenosine 3',5'-cyclic monophosphate sodium salt monohydrate | Sigma            | A6885          |          |
| Adenosine 5'-triphosphate - 100 mM                           | NEB              | N0450L         |          |
| Applied Biosystems Veriti 384-well Thermocycler              | ThermoFisher     | 4388444        |          |
| Assay Plate Adhesives  | BioRad           | MSB1001        |          |
| $\beta$ -Nicotinamide adenine dinucleotide hydrate (NAD)     | Sigma/Roche      | 10127965001    |          |
| Coenzyme A hydrate   | Sigma            | C4283          |          |
| Cytidine 5'-triphosphate - 100 mM                            | NEB              | N0450L         |          |
| D-(-)-3-Phosphoglyceric acid disodium salt (3-PGA)           | Sigma            | P8877          |          |
| Dewar Flask - 4L   | ThermoScientific | 10-194-100C    |          |
| DL-Dithiothreitol solution - 1 M                             | Sigma            | 42816          |          |
| Folinic acid calcium salt hydrate                            | Sigma            | 47612          |          |
| Glacial Acetic Acid  | Sigma            | A6283          |          |
| Guanosine 5'-triphosphate - 100 mM                           | NEB              | N0450L         |          |
| HEPES  | Sigma            | H3375          |          |
| L-Glutamic acid hemimagnesium salt tetrahydrate              | Sigma            | 49605          |          |
| L-Glutamic acid potassium salt monohydrate                   | Sigma            | G1149          |          |
| LB Broth (Miller)  | Sigma            | L3522          |          |
| Magnesium chloride (MgCl <sub>2</sub> )                      | Sigma            | M8266          |          |
| Plasmid pJL1-sfGFP   | Addgene          | 69496          |          |

|  |               |             |  |
|--|---------------|-------------|--|
| Plasmid Plus <i>Maxi</i> kit                           | Qiagen        | 12963       |  |
| Poly(ethylene glycol) (PEG)-8000                       | Sigma         | 89510       |  |
| Potassium chloride (KCl)                               | Sigma         | P9333       |  |
| Potassium hydroxide Pellets                            | Sigma/Roche   | 1050121000  |  |
| Q125 Sonicator and CL-18 probe with a 1/8-inch tip     | Qsonica       | 4422        |  |
| RNA Clean and Concentrator Kit                         | Zymo          | R1013       |  |
| RNase Inhibitor, Murine                                | NEB           | M0314       |  |
| RTS Amino Acid Sampler                                 | Biotechrabbit | BR1401801   |  |
| Sodium chloride (NaCl)                                 | Sigma         | S7653       |  |
| Spermidine   | Sigma         | S0266       |  |
| T7 RNA Polymerase                                      | NEB           | M0251       |  |
| Tris Solution (pH 8.0) - 1 M                           | Invitrogen    | AM9856      |  |
| tRNA from <i>E. coli</i> MRE 600                       | Sigma/Roche   | 10109541001 |  |
| Uridine 5'-triphosphate - 100 mM                       | NEB           | N0450L      |  |
| <i>Vibrio natriegens</i> (Wild-type) Lyophilized Stock | ATCC          | 14048       |  |