

Materials List for:

# ***Escherichia Coli*-Based Cell-Free Protein Synthesis**

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## Materials

| Name                          | Company            | Catalog Number | Comments |
|-------------------------------|--------------------|----------------|----------|
| Luria Broth                   | ThermoFisher       | 12795027       |          |
| Tryptone                      | Fisher Bioreagents | 73049-73-7     |          |
| Yeast Extract                 | Fisher Bioreagents | 1/2/8013       |          |
| NaCl                          | Sigma-Aldrich      | S3014-1KG      |          |
| Potassium Phosphate Dibasic   | Sigma-Aldrich      | 60353-250G     |          |
| Potassium Phosphate Monobasic | Sigma-Aldrich      | P9791-500G     |          |
| D-Glucose                     | Sigma-Aldrich      | G8270-1KG      |          |
| KOH                           | Sigma-Aldrich      | P5958-500G     |          |
| IPTG                          | Sigma-Aldrich      | I6758-1G       |          |
| Mg(OAc)2                      | Sigma-Aldrich      | M5661-250G     |          |
| K(OAc)                        | Sigma-Aldrich      | P1190-1KG      |          |
| Tris(OAc)                     | Sigma-Aldrich      | T6066-500G     |          |
| DTT                           | ThermoFisher       | 15508013       |          |
| tRNA                          | Sigma-Aldrich      | 10109541001    |          |
| Folinic Acid                  | Sigma-Aldrich      | F7878-100MG    |          |
| NTPs                          | ThermoFisher       | R0481          |          |
| Oxalic Acid                   | Sigma-Aldrich      | P0963-100G     |          |
| NAD                           | Sigma-Aldrich      | N8535-15VL     |          |
| CoA                           | Sigma-Aldrich      | C3144-25MG     |          |
| PEP                           | Sigma-Aldrich      | 860077-250MG   |          |
| K(Glu)                        | Sigma-Aldrich      | G1501-500G     |          |
| NH4(Glu)                      | MP Biomedicals     | 02180595.1     |          |
| Mg(Glu)2                      | Sigma-Aldrich      | 49605-250G     |          |
| Spermidine                    | Sigma-Aldrich      | S0266-5G       |          |
| Putrescine                    | Sigma-Aldrich      | D13208-25G     |          |
| HEPES                         | ThermoFisher       | 11344041       |          |
| Molecular Grade Water         | Sigma-Aldrich      | 7732-18-5      |          |
| L-Aspartic Acid               | Sigma-Aldrich      | A7219-100G     |          |
| L-Valine                      | Sigma-Aldrich      | V0500-25G      |          |

|                                                   |                     |                |                         |
|---------------------------------------------------|---------------------|----------------|-------------------------|
| L-Tryptophan                                      | Sigma-Aldrich       | T0254-25G      |                         |
| L-Phenylalanine                                   | Sigma-Aldrich       | P2126-100G     |                         |
| L-Isoleucine                                      | Sigma-Aldrich       | I2752-25G      |                         |
| L-Leucine                                         | Sigma-Aldrich       | L8000-25G      |                         |
| L-Cysteine                                        | Sigma-Aldrich       | C7352-25G      |                         |
| L-Methionine                                      | Sigma-Aldrich       | M9625-25G      |                         |
| L-Alanine                                         | Sigma-Aldrich       | A7627-100G     |                         |
| L-Arginine                                        | Sigma-Aldrich       | A8094-25G      |                         |
| L-Asparagine                                      | Sigma-Aldrich       | A0884-25G      |                         |
| Glycine                                           | Sigma-Aldrich       | G7126-100G     |                         |
| L-Glutamine                                       | Sigma-Aldrich       | G3126-250G     |                         |
| L-Histadine                                       | Sigma-Aldrich       | H8000-25G      |                         |
| L-Lysine                                          | Sigma-Aldrich       | L5501-25G      |                         |
| L-Proline                                         | Sigma-Aldrich       | P0380-100G     |                         |
| L-Serine                                          | Sigma-Aldrich       | S4500-100G     |                         |
| L-Threonine                                       | Sigma-Aldrich       | T8625-25G      |                         |
| L-Tyrosine                                        | Sigma-Aldrich       | T3754-100G     |                         |
| Fisherbrand Premium Microcentrifuge Tubes: 2.0 mL | Fisher Scientific   | 05-408-138     |                         |
| Fisherbrand Premium Microcentrifuge Tubes: 1.5 mL | Fisher Scientific   | 05-408-129     |                         |
| Fisherbrand Premium Microcentrifuge Tubes: 0.6 mL | Fisher Scientific   | 05-408-120     |                         |
| PureLink HiPure Plasmid Prep Kit                  | ThermoFisher        | K210007        |                         |
| Ultrasonic Processor                              | QSonica             | Q125-230V/50Hz | 3.175 mm diameter probe |
| Avanti J-E Centrifuge                             | Beckman Coulter     | 369001         |                         |
| JLA-8.1000 Rotor                                  | Beckman Coulter     | 366754         |                         |
| 1L Centrifuge Tube                                | Beckman Coulter     | A99028         |                         |
| Tunair 2.5L Baffled Shake Flask                   | Sigma-Aldrich       | Z710822        |                         |
| Microfuge 20                                      | Beckman Coulter     | B30134         |                         |
| New Brunswick Innova 42/42R Incubator             | Eppendorf           | M1335-0000     |                         |
| Cytation 5                                        | BioTek              |                |                         |
| Strep-Tactin XT Starter Kit                       | IBA                 | 2-4998-000     |                         |
| pJL1-sfGFP                                        | Addgene             | 69496          |                         |
| BL21(DE3)                                         | New England BioLabs |                |                         |