Expression of selenomethionyl-protein

1. Transform *E. coli* B834(DE3) with your plasmid.
2. Use a single colony from a Luria Bertani (LB) medium agar plate containing 100 µg·ml⁻¹ ampicillin to inoculate a 2ml liquid culture of the same medium.
3. Use 1ml of the over-night culture to inoculate 500ml Erlenmeyer flasks containing 100ml of a **minimal medium** (see below).
4. Grow culture (37°C, ~200RPM) to OD₆₀₀≈0.6, whereas the logarithmic growth curve saturates due to the termination of the methionine in the medium. Note that the minimal medium already contains methionine, which should be exactly sufficient for growth termination at this point, but maybe a further adjustment will be needed.
5. Add selenomethionine (100 mg·liter⁻¹) 2 min later. (C₅H₁₁NO₂Se; **MP Biomedicals**)
6. Add IPTG.
7. Incubate cells under your appropriate inducing conditions.

**Minimal medium** is composed of the following filter-sterilized components: (g·liter⁻¹, except as noted): alanine, 0.5; arginine, 0.4; aspartic acid, 0.4; asparagine, 0.4; cysteine, 0.05; glutamine, 0.4; glutamic acid, 0.65; glycine, 0.55; histidine, 0.1; isoleucine, 0.23; leucine, 0.23; lysine, 0.42; methionine (8.0 mg·liter⁻¹); phenylalanine, 0.13; proline, 0.1; serine, 2.1; threonine, 0.23; tryptophan, 0.05; tyrosine, 0.17; valine, 0.23; adenine, 0.5; guanosine, 0.65; thymine, 0.2; uracil, 0.5; cytosine, 0.2; Na₂HPO₄, 7.0; KH₂PO₄, 3.0; NH₄Cl, 1; NaCl, 1.0; NaOH, 0.5; D-glucose, 4.0; MgSO₄·7H₂O (7.4 mg·liter⁻¹); CaCl₂·2H₂O (0.07 mg·liter⁻¹); FeSO₄·7H₂O (1.1 mg·liter⁻¹) and ampicillin (100 mg·liter⁻¹).

**References**