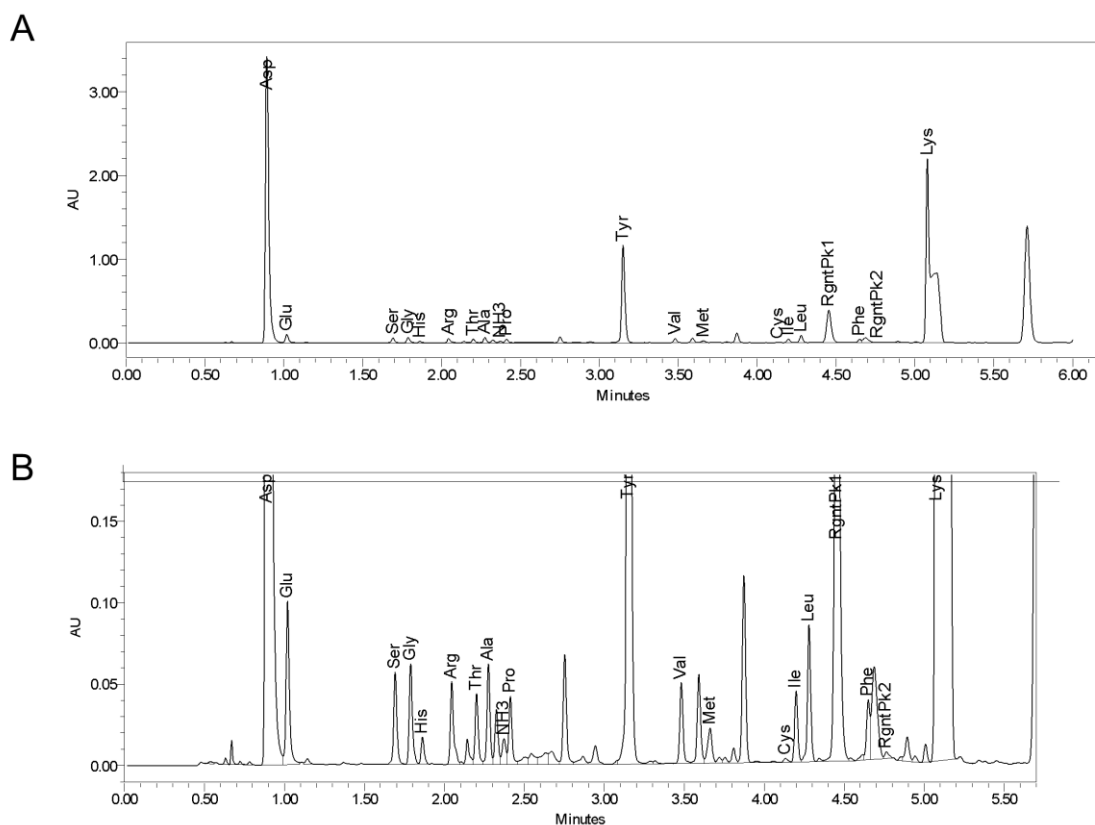
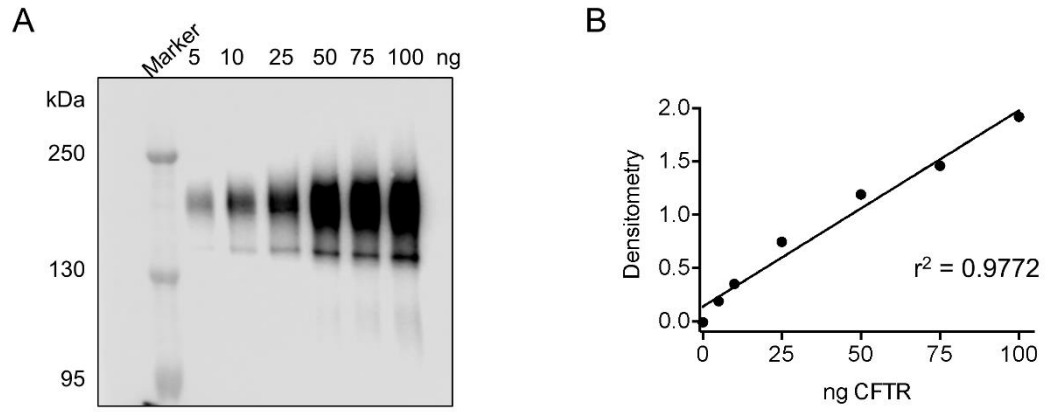


**Supplementary Figure 1:** Trapped iodide is similar for the two reconstitutions, reconstitution of LMNG purified CFTR and amphipol purified CFTR. Bars correspond to iodide measurements before valinomycin addition and after detergent lysis normalized to CFTR amounts. The data is presented as mean  $\pm$  SD ( $n > 3$  biological replicates and  $n > 3$  technical replicates).  $P = 0.9974$ ; paired t-test.



**Supplementary Figure 2:** Results of amino acid analysis of CFTR standard. (a) Chromatogram of all the amino acids present in CFTR standard. (b) Scaled chromatogram to magnify the smaller peaks.



**Supplementary Figure 3:** Representative immunoblot and standard curve applied for CFTR quantification. (a) Immunoblot of CFTR standard at increasing amounts (nanograms). (b) Standard curve of (a) that is used for interpolation of unknown purified protein.

**Supplementary Table 1:** Summary table of amino acid analysis results of CFTR standard. Table shows the amino acid (3-letter code), retention time (RT) in minutes of when the amino acid shows up, the area under the peak and the corresponding amount of the amino acid in picomoles (pmoles) in a 100  $\mu$ l purified CFTR standard.

| Amino acid | RT    | Area    | Amount (pmoles) |
|------------|-------|---------|-----------------|
| Asp        | 0.892 | 5099166 | 66398.567       |
| Glu        | 1.019 | 147780  | 2021.338        |
| Ser        | 1.692 | 79642   | 1035.873        |
| Gly        | 1.788 | 86381   | 1139.691        |
| His        | 1.862 | 22241   | 289.816         |
| Arg        | 2.045 | 74065   | 947.141         |
| Thr        | 2.201 | 59033   | 747.984         |
| Ala        | 2.275 | 83745   | 1015.112        |
| Pro        | 2.412 | 59190   | 713.162         |
| Tyr        | 3.150 | 1680122 | 19755.248       |
| Val        | 3.480 | 70278   | 882.894         |
| Met        | 3.661 | 41282   | 496.935         |
| Cys        | 4.132 | 4485    | 37.648          |
| Ile        | 4.198 | 60431   | 686.995         |
| Leu        | 4.279 | 124398  | 1497.008        |
| Phe        | 4.650 | 53427   | 618.165         |
| Lys        | 5.079 | 5901164 | 38071.770       |

**Supplementary Table 2:** Variables for determining concentration of CFTR standard.

| Variable              | Value   |
|-----------------------|---|
| MW Ala                | 89.0935 – 18 (for peptide bond)<br>= 71 g/mol or pg/pmole                             |
| weight Ala            | 1015.12 pmoles (from chromatogram)<br>1015.12 pmoles x 71.0935 pg/pmole<br>= 72065 pg |
| number of Ala in CFTR | 83  |