To prepare 1000 ml of cortex buffer, weight out the required amount of the salts, NaCL, KCl, Glucose and HEPES (mentioned below) and make up the volume of the solution with Milli Q Water till about slightly less than 1000 ml. Measure the pH using a calibrated pH meter. The expected pH is slightly acidic (around 5), so use 1M NaOH (aq) to set the pH to 7.35.

Then, fill up the volume to 1000 ml and verify the pH (should not have changed). Filter the contents through a 0.22 um membrane using a vacuum filtration, and store at 6 °C.

| **INGREDIENT** | **CONCENTRATION (mM)** | **Amount (g or ml)** |
| --- | --- | --- |
| NaCl (s) | 125 | 7.31 g |
| KCl (s) | 5 | 0.373 g |
| Glucose (s) | 10 | 1.8 g |
| HEPES (s) | 10 | 2.38 g |
| CaCl2 (aq) | 2 | 1.6 ml of 1.25 M stock solution |
| MgCl2 (aq) | 2 | 1.5 ml of 1.3 M stock solution |