**Sodium borate EDTA (SBE) Gel Electrophoresis Buffer**

Adapted from: http://openwetware.org/wiki/SB

Updated: 4.11.23 M. Studivan

**Note:** SBE has lower conductivity than Tris Borate EDTA (TBE) and less heat buildup, allowing for faster gel runs at higher voltages. It is made as a 20X stock rather than the 10X for TBE, so adjust volumes accordingly when making gels.

1. Reagents needed: Sodium Tetraborate Decahydrate, Boric Acid, nuclease-free water (NFW), and EDTA 0.5 M pH 8.0.
2. Prepare a 20X concentrate of the buffer:
   1. 38.2g Sodium Tetraborate Decahydrate
   2. 33.0g Boric Acid
   3. ~40mL EDTA
   4. NFW to reach 1L
3. Dilute to 1X for gels and running buffer
4. Run gels at 150V for 30-35min (up to 300V if you’re crazy).