

Stock Solution



TD-S Revision 2.0

Creation Date: 6/17/2015
Revision Date: 10/17/2019

2X BES-Buffered Saline Stock Solution, 0.05M pH 6.95 - 1 L

Instructions

1. Add 10.66 g of BES ([BES, GoldBio Catalog # B-780](#) [CAS 10191-18-1, mw. = 213.25]) to 750 mL of dH₂O.
2. Add 16.36 g NaCl and 0.21 g Na₂HPO₄. The solution should be at pH ~5.75 once all solid reagents are dissolved.
3. Adjust to desired pH using 1M NaOH.
4. Fill to final volume of 1 L with dH₂O.
5. Filter sterilize.
6. Store as aliquots at 4°C.

Note: BES-buffered saline solution is used in the calcium phosphate-mediated transformation of mammalian cells with plasmid DNA. The pH is critical for efficient stable transformation.

References

- Schenborn, Elaine T., and Virginia Goiffon. "Calcium phosphate transfection of mammalian cultured cells." *Transcription factor protocols*. Humana Press, 2000. 135-145.
- Chen, Claudia, and Hiroto Okayama. "High-efficiency transformation of mammalian cells by plasmid DNA." *Molecular and cellular biology* 7.8 (1987): 2745-2752.