sLB BROTH (BUFFERED)

Cat: 1199

This medium has been designed to increase bacterial growth and leads to high yields of low copy plasmids and extra high yields of high copy plasmids. The medium is pH stabilized.

Final pH 7.0 ± 0.2 at 25°C

Preparation

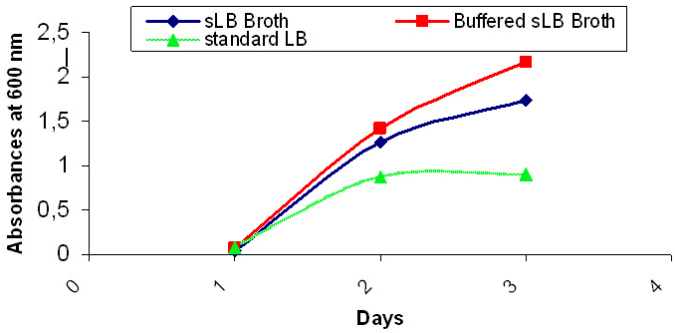
Suspend 54,8 grams of the medium in 1000 ml of distilled water. Mix well and heat with frequent agitation until its complete dissolution. Distribute in tubes and sterilize in autoclave at 121 ºC during 15 minutes.

Uses

BUFFERED sLB BROTH has been designed to increase bacterial growth and leads to high yields of low copy plasmids and extra high yields of high copy plasmids. The medium pH is stabilized using a biological buffer system.
In the standard LB Broth, *E.coli* cells reach an abrupt stationary phase upon consumption of nutrients contained in the medium. Cell multiplication is stopped and some cell death and plasmid loss occurs.

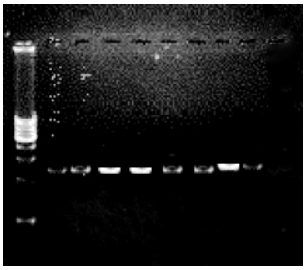
Based on the findings of extensive research, our laboratories have developed a new formulation using a proprietary Peptone Mixture, Yeast Extract and salts which allow recombinant *E.coli* cells to have a higher growth. At the end of the log phase replication continues, thus obtaining higher DNA plasmid yields. Buffered sLB Broth cultures have shown cell stability up to 3 days without cell death, being this one a more convenient medium that eliminates the need of constant attention.

Fig 1*: E.Coli* DH5α's growth during 3 days at 37°C.



In this picture we can see that *E.coli's* growth is higher in sLB and buffered sLB Broths than in standard LB after 3 days in the media at 37°C. Once the 3 day period was over, we extracted pUC19 plasmid DNA expecting the yield in these 2 new media to be higher than in standard LB.

The following picture is the electrophoresis in Pronadisa Agarose D1 Low EEO (1% TAE)



1 2 3 4 5 6 7 8 9 10

pUC19 Plasmid DNA extracted from *E. coli* DH5α cells after growth in different broths during 3 days.

Lane 1: DNA Ladder 1Kb.
Lanes 2 & 3: LB Broth Brand A
Lanes 4 & 5: Buffered sLB
Lanes 6 & 7: LB Broth Brand B
Lanes 8 & 9: sLB
Lane 10: Negative Control