Transformation of DMSO-Competent E. coli

Modified by Gunther Stier from a protocol described in H. Inoue, H. Nojima, and H. Okayama. "High efficiency transformation of Escherichia coli with plasmids" Gene 96 (1):23-28, 1990.

Procedure

1. Thaw DMSO competent cells on ice. Try to use them as quick as possible, once they thawed!
2. Add 100ng of circular plasmid to 50μl cells
3. Incubate 10-30 minutes on ice
4. Heat shock 45seconds at 42°C
5. Chill on ice for 2min
6. Spin down (15sec at 5,000xg) and remove SN [This seems to boost efficiency by a factor of 10, by removing DMSO and Mn salts]
7. Resuspend in 0.2-1.0ml LB or SOC and grow in the shaker 20-60minutes
8. Plate 20μl and the rest on plates with the appropriate antibiotic

Needed

1. Heating bath at 42°C
2. Plates prewarmed at 37°C
3. LB or SOC media prewarmed at 37°C