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Data Sheet

Competent *E. coli* Top10

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Description	**Competent *E. coli* TOP10 cells are ready for heat shock transformation with vector DNA and its subsequent propagation for cloning and transfection purposes.**
Genotype	F$^-$ *mcr*A Δ(*mrr-hsd*RMS-*mcr*BC) Φ80*lacZ*ΔM15 Δ*lac*X74 *rec*A1 *ara*Δ139 Δ(*ara-leu*)7697 *gal*U *gal*K *rps*L (Str^R) *end*A1 *nup*G
Transformation efficiency	>1 x 10^7 cfu/µg supercoiled DNA
Form	20 separate one-shot reactions
Amount	100 µl per reaction
Biosafety level	S1 (Germany), BSL-2 (USA)
Stability	12 months after shipping
Storage	Store in cryo storage system at -90 °C to -60 °C
Shipping	Dry ice
Hazards	Product is not classified as hazardous according to (EC) No 1272/2008 [CLP]. A Material Safety Data Sheet is provided.
Application	Thaw a vial of competent *E. coli* TOP10 on ice. Add up to 10 µl DNA (e.g., from a StarGate® ligation reaction) to the thawed competent *E. coli* TOP10 cells. Mix gently (do not vortex) and then incubate for 30 min on ice. Repeat gentle mixing and incubate for 5 min at 37 °C. Mix gently and then incubate for 2-5 min on ice. Add 900 µl LB medium and shake for 45 min at 37 °C. This incubation step is necessary especially when using kanamycin to express resistance genes prior to plating on plates for selection. Plate 100 µl on LB agar containing antibiotic (if required) and 50 mg/L X-gal (optional). Centrifuge the residual 900 µl cell mixture for 30 sec in a microfuge, resuspend the cells with 100 µl LB medium and plate the whole amount as above. Incubate plates over night at 37 °C. Pick single colonies for further analyses (plasmid isolation, PCR…).

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