OmniMAX2-T1 Competent Cells

Cat: C1440
Size: 10×100μL
Storage: Store at -70℃ for 6 months to avoid repeated freezing and thawing. Not suitable for storage in liquid nitrogen.

Introduction:

OmniMAX2-T1 competent cells produced by our company are competent cells obtained by special processing of E. coli OmniMAX2-T1 strain, which can be used for chemical transformation of DNA. The conversion efficiency reached 10^8 cfu/μg by pUC19 plasmid detection.

Genotype:

F'{proAB+lacIqlacZΔM15Tn10(TetR)Δ(ccdAB)}mcrAΔ(mrr-hsdRMS-mcrBC)φ80(lacZ)ΔM15Δ(lacZYA-argF)U 169endA1recA1supE44thi-1gyrA96relA1tonApanD

Strain Resistance: The cells were tetracycline resistant.

Features:

1. The restriction system of mcrA, mrr, mcrBC and hsdRMS is eliminated, and the methylated DNA is cloned efficiently, which can be used for library construction.
2. T1, T5 phage resistance to protect samples from phage contamination; Optimized genotype to avoid DNA rearrangement;
3. It can be used for blue and white spot screening;
4. It is used to prepare single-stranded DNA.

Protocols: (The following operations are carried out according to the standard of sterile conditions)

1. The competent cells are placed in an ice bath. If necessary, the freshly melted cell suspension can be subpacked into a sterile pre-cooled centrifuge tube and placed in the ice bath.
2. The target DNA was added into the competent cell suspension, the centrifuge tube was gently rotated to mix the contents, and the contents were left in an ice bath for 30min.
3. The centrifuge tube was placed in a water bath at 42°C for 60s, and then quickly transferred to the ice bath to cool the cells for 2min without shaking the centrifuge tube.
4. 500μL sterile SOC or LB medium(without antibiotics) was added to each centrifuge tube, mixed and placed at 37℃, 150rpm, and shaken for 60min. The purpose was to express related resistance marker genes on the plasmid and revive the bacteria.
5. Under sterile conditions, appropriate amount of bacterial solution was added to LB solid medium plate containing corresponding antibiotics, and the cells were evenly coated with sterile bacterial coater or glass beads. After the liquid in the plate was completely absorbed, the plate was inverted and cultured at 37℃ for 12-16h.
6. Keep the remaining bacterial solution in the refrigerator at 4℃, and decide whether to leave or

leave according to the growth of the colony on the plate.

Notes:

1. The competent cells should be stored at -70℃, can not be frozen and thawed repeatedly, otherwise its conversion efficiency will be reduced.
2. The experiment should be strictly aseptic operation, to prevent the contamination of other DNA or miscellaneous bacteria, to avoid the impact on the future screening and identification.
3. During conversion, the conversion efficiency is proportional to the concentration of foreign DNA within a certain range, but when the amount of foreign DNA added is too large or the volume is too large, the conversion efficiency will be reduced. The volume of DNA during transformation should be less than one-tenth of the volume of competent cells.
4. Calculation of conversion rate: Conversion rate = total number of colonies produced/total amount of paving DNA.
5. In order to prevent the conversion experiment from being unsuccessful, part of the connection products can be retained to re-transform and minimize the loss.

Related Products:

I1020 IPTG solution(50mg/mL)
A1170 Ampicillin storage Solution(100mg/mL)
K1030 Kanamycin(100mg/mL) kanamycin
L1015 LB solid medium(dry powder)
L1020 SOC Liquid medium(dry powder)
X1010 X-gal(20mg/mL)