BL21-CodonPlus(DE3)-RIPL Competent Cells

Cat: C3670
Size: 10×100μL/20×100μL
Storage: Store at -70°C to avoid repeated freezing and thawing.

Product Parameters:
English name: BL21-CodonPlus (DE3)-RIPL Competent cells

Genotype: F^{-}ompT hsdS(rm)$_B^{-}$ dcm^{+} Tet^{R} gal λ(DE3) endA Hte [argU proL Cam] [argU ileY leuW Strep/Spec^{R}]

Strain Resistance: Strains with tetracycline, chloramphenicol, streptomycin, spectacular resistance. The strains were sensitive to ampicillin and kanamycin.

Introduction:
BL21-CodonPlus(DE3)-RIPL belongs to the E. Coli strain B. Lon protease and OmpT protease deficient forms. The BL21-CodonPlus(DE3)-RIPL strain can provide 4 additional amino acids corresponding to the rare tRNA argU(AGA,AGG), ileY(AUA), proL(CCC), leuW(CUA). Recombinant plasmids constructed from pACYC vectors can provide additional copies of argU and proL-tRNA genes. The pSC101 recombinant plasmid expressed additional copies of argU, ileY and leuW-tRNA genes. Improve the expression of foreign genes rich in AT or GC sequences in Escherichia coli. This strain also has the DE3 region of λ phage, which can express T7 RNA polymerase, which is suitable for efficient expression of prokaryotic expression vectors (such as pET) containing T7 promoter. Non-t7 promoter expression vectors(such as pGEX, pMal, pTrc, etc.) can also be expressed in this strain. The competent cells were made by a special process, and the conversion efficiency of pUC19 plasmid was up to 1×10^{6} cfu/μg DNA.

Protocols:
1. The competent cells are placed in an ice bath to defreeze. After the cells were just defrosted, plasmid DNA was added to the cells, dial the bottom of the tube with your finger, and mix gently;
2. Place in the ice bath for 30min, do not shake;
3. Heat shock at 42℃ for 60s, do not shake;
4. Place in the ice bath for 2min, do not shake;
5. Add 500μL sterile LB medium;
6. The culture was placed in a shaking table at 37℃, 150-200rpm for 60min.
7. Take 50-100μL bacterial solution and apply it on LB plate containing resistance. After the liquid was drained, the plate was turned upside down and cultured at 37℃ overnight.

(**Plate scribing separation method:** After the recovery culture, centrifuge at 12000rpm for 30s, discard the supernatant, leave about 100μL of liquid, gently blow the bacteria with 200μL suction head, take 10μl of suspended bacterial liquid divided into more drops on the plate, tilt the suction

head, and use the side of the suction head to scribing the liquid dripping on the plate. This method can obtain a larger monoclonal colony. This method is mainly suitable for plasmid transformation, and the conversion of link products is best by coating.)

(**Rapid plasmid transformation steps:** For ampicillin resistant plasmids, shorten the time of step 2 to 5min. After completing step 4, it can be directly coated or marked on the ampicillin resistant LB plate. Other resistant plasmids still require 60min of resuscitation.)

Notes:

1. If the biochemical reagents produced by our company are not specially marked, they are basically non-sterile packaging. If they are used in cell experiments, please pre-treat them in advance.
2. Once it is prepared into a solution, please pack it separately and store it to avoid product failure caused by repeated freezing and thawing.
3. The product information is for reference only, if you have any questions, please call 400-968-6088 for consultation.
4. This product is for scientific research only. Do not use for medicine, clinical diagnosis or therapy, food or cosmetics. Do not store in ordinary residential areas.
5. For your safety and health, please wear a lab coat and wear disposable gloves and a mask.