Ar.1193 Electroporation Competent Cell

Cat. No. *ACC-126*

Lot. No. (See product label)

Product Name

Ar.1193 Electroporation Competent Cell

Product Overview

The genotype of Ar.1193 Electroporation Competent Cell is Agrobacterium rhizogenes (carb^R,str^R,rif ^{R}) pRi1193 (agropine type). Agrobacterium rhizogenes is a Gram-negative soil bacterium that can infect most dicotyledons, a few monocotyledons and some gymnosperms. The Ar.1193 Agrobacterium rhizogenes strain contains pRi1193 agrobacterium-type Ri plasmid with a broad host range (leguminosae, solanaceae, etc.) and carbenicillin, streptomycin, rifampicin resistance. This competent cell is particularly suitable for the transformation of large plasmids

Applications

Ar.1193 Electroporation Competent Cell is suitable for transgenic operations of leguminosae, solanaceae and other plants.

Notes

1. Volume of DNA from ligation mix should not exceed 1/10 of the cell mixture; DNA for transformation should be purified and free of organic substances such as ethanol.
2. Do not pipette or vortex cells.
3. Plating volume can be adjusted accordingly.
4. Please avoid excessive use of rifampicin. Maximum concentration of rifampicin in selection is 25 μg/mL.

Kit Components

Ar.1193 Electroporation: 50 μL/tube * 10 tube/50 tube.

Assay Protocol

1. Take out the 0.1 cm electric shock cup and the lid from the storage solution, place on a clean absorbent paper for 5 minutes, and evaporate the ethanol for 5 minutes. Then insert the electric shock cup in ice for 5 minutes immediately, keeping the top of the electrode cup 0.5 cm away from the ice surface to cover the lid.
2. Thaw Agrobacterium competent cells in ice.
3. Add 0.01-1 μg of plasmid DNA to 50 μL of competent cells (The plasmid volume is not more than 6 uL, it is best to use the kit to extract, double distilled water to dissolve). Carefully flick the tube to mix cells and DNA (Do not pipette or vortex) and quickly transfer the mixture to the electric shock cup, then close the lid.
4. Start the electro-rotator and set the parameters: C=25 μF, PC=200 ohm, V=2400 V. The electric shock cup was quickly placed in the electrorotation tank and was inserted into the ice after the electric shock was completed.
5. Add 700 μL of antibiotic-free TY liquid medium to the mixture and shake for 2 to 3 hours at 28°C.
6. Centrifuge culture at 6000 rpm for 1 minute and dispose ~700 μL supernatant. Resuspend cell pellet in the rest 100 μL medium.
7. Spread 50-100 μL cell suspension to TY plate containing proper antibiotics and incubate at 28°C for 2 - 4 days (Incubate for 48 h when selection medium contains 50 μg/mL kan; Incubate for 60 h when selection medium contains 50 μg/mL kan and 20 μg/mL rif; Incubate for 72-90 h when selection plate contains 50 μg/mL rif).

Transformation efficiency

Transformation efficiency of Ar.1193 Electroporation Competent Cell using pCAMBIA2301 plasmid with 50 μg/mL kan is >10^5 cfu/μg DNA. Transformation efficiency is reduced to half when the plate contains 50 μg/mL kan and 20 μg/mL rif.

Storage

Store at - 80 °C for 12 months.

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