C58C1 Chemically Competent Cell

Cat. No. *ACC-119*

Lot. No. (See product label)

Product Name

C58C1 Chemically Competent Cell

Product Overview

The genotype of C58C1 Chemically Competent Cell is Agrobacterium rhizogenes (str^R,rif^R) pRiA4b (agropine type). Agrobacterium rhizogenes is a Gram-negative soil bacterium that can infect most dicotyledons, a few monocotyledons and some gymnosperms. The C58C1 Agrobacterium rhizogenes strain contains pRiA4b agrobacterium-type Ri plasmid with a broad host range (rosaceae, apocynaceae, leguminosae, solanaceae, astragalus, tobacco, etc.) and streptomycin and rifampicin resistance.

Applications

C58C1 Chemically Competent Cell is suitable for transgenic operations of rosaceae, apocynaceae, leguminosae, solanaceae, astragalus, tobacco 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

C58C1: 100 μL/tube * 10 tube/50 tube/100 tube.

Assay Protocol

1. Thaw Agrobacterium competent cells at room temperature or in the palm, and place in ice bath.
2. Add 0.01-1 μg of plasmid DNA to 100 μL of competent cells. Carefully flick the tube to mix cells and DNA. Do not pipette or vortex.
3. Place the tube on ice for 5 minutes, in liquid nitrogen for 5 minutes, in 28°C or 37°C water bath for 5 minutes, and in ice bath for 5 minutes.
4. Add 700 μL of antibiotic-free TY liquid medium to the mixture and shake for 2 to 3 hours at 28°C.
5. Centrifuge culture at 6000 rpm for 1 minute and dispose ~700 μL supernatant. Resuspend cell pellet in the rest 100 μL medium.
6. 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 C58C1 Chemically Competent Cell using pCAMBIA2301 plasmid with 50 μg/mL kan is >10^4 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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