DB3.1 Chemically Competent Cell

Catalogue No.:abx098865

DB3.1 Chemically Competent Cell is designed for chemical transformation of DNA. This cell contains the *gyrA462* gene which provides resistance to the toxic effects from the *ccdB* gene, and is resistant to streptomycin sulfate.

This product can be used for transformation and propagation of plasmids containing the *ccdB* gene, with a transformation efficiency of over 10^8 cfu/μg DNA (tested by pUC19 plasmid DNA).

The genotype is: F$^-$ *gyr*A462 *end*A1 Δ(*sr*1-*rec*A) *mcr*B *mrr hsd*S20(r_B^-, m_B^-) *sup*E44*ara*-14 *gal*K2 *lac*Y1 *pro*A2 *rps*L20(Sm^R) *xyl*-5 λ- *leu mtl*1.

The 1 ml size consists of 10 × 100 μl Competent Cells, 20 μl (0.1 ng/μl) Control Plasmid pUC19, and 10 ml SOC Medium.

Target:	DB3.1 Chemically Competent Cell
Storage:	Store at -70 °C for up to 6 months. Do not store in liquid nitrogen. Avoid repeated freeze/thaw cycles.
Note:	THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC, THERAPEUTIC OR COSMETIC PROCEDURES. NOT FOR HUMAN OR ANIMAL CONSUMPTION. This product is shipped with dry ice.
Directions for use:	**Recommended Protocol:** 1. Equilibrate a water bath to 42 °C. Bring a vial of SOC medium or LB medium to room temperature. Warm selective plates to 37 °C for 30 minutes. 2. Thaw 100 μl of DB3.1 Chemically Competent Cell on ice. Aliquot 50 μl of cells into a pre-chilled 1.5 ml tube, then add target DNA (1-5 μl). Do not mix by pipetting up and down. Leave on ice for 30 minutes. 3. Heat-shock the cells for 45 seconds at 42 °C, without shaking. Immediately transfer to the tube to ice. Leave on ice for 2 minutes without shaking. 4. Add 500 μl of prewarmed SOC medium or LB medium (without antibiotics) into the tube. Mix well and shake at 37 °C for 1 hour at 200 RPM for cell recovery and expression of antibiotic resistance. 5. Spread 20-200 μl from each transformation vial onto a pre-warmed selective plate. Cells that have not been plated can be stored at 4 °C and plated the next day if required. 6. Invert the plates and incubate at 37 °C overnight. 7. Select colonies and analyse by restriction enzyme digestion, PCR or sequencing. **Note:** Higher efficiency transformation can be achieved by transforming cells immediately following thawing. Avoid repeated thawing. All samples and reagents require gentle handling throughout the entire procedure.

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