



CH3-Blue Chemically Competent Cells are provided at a transformation efficiency of 1×10^8 cfu/ μ g supercoiled DNA, making them ideal for difficult clone construction or blunt end ligation.

Features & Benefits

- **Versatile** -cloning of methylated and non-methylated DNA
- **High efficiency** -available in $\geq 10^8$ cfu/ μ g, perfect for difficult clone construction
- **Easy screening** -with blue/white color selection
- **Convenient size** -small aliquotes reduce waste

Applications

- Cloning of methylated DNA
- Ideal for subcloning
- Generating cDNA libraries
- Blue/white color screening

Description

CH3-Blue Chemically Competent Cells are a highly efficient derivative of *E. coli* K12, ideal for difficult clone construction using plasmid derived vectors.

To facilitate the cloning of DNA that contains methylcytosine or 5-hydroxymethylcytosine, CH3-Blue lacks the *E.coli* restriction systems *mcrA*, *mcrBC*, *mrr* and *hsdRMS*.

The addition of *endA1* allows for cleaner preparations of DNA and better results in downstream applications. The elimination of non-specific digestion by Endonuclease I and the *recA1* reduces the occurrence of non-specific recombination in cloned DNA. This minimizes recombination events and improves the quality and yield of plasmid DNA.

The *lacZ* mutation allows blue/white color screening and α -complementation of recombinants.

Notes

Genotype: F- $\Delta mcrA \Delta(mrr-hsdRMS-mcrBC) \Phi 80/lacZ\Delta M15 \Delta lacX74 recA1 endA1 ara\Delta 139 \Delta(ara, leu)7697 galU galrpsL(Str^R) nupG \lambda$