



# Competent cell selection guide

An overview of competent cells listed by recommended applications

Product	Quantity	Transformation efficiency*	Chemically (C) or electro (E) competent	T1 phage resistance (tonA)	Reduces recombination events (recA)	Improves miniprep plasmid DNA quality (endA1)	Blue/white screening (lacZΔM15)	Cat. No.
<b>Routine cloning</b>								
MAX Efficiency DH10B	5 x 200 µL	> 1 x 10 <sup>9</sup>	C	—	•	•	•	18297-010
MAX Efficiency DH5α	5 x 200 µL	> 1 x 10 <sup>9</sup>	C	—	•	•	•	18258-012
One Shot MAX Efficiency DH10B T1 <sup>R</sup>	20 x 50 µL	> 1 x 10 <sup>9</sup>	C	•	•	•	•	12331-013
One Shot MAX Efficiency DH5α T1 <sup>R</sup>	20 x 50 µL	> 1 x 10 <sup>9</sup>	C	•	•	•	•	12297-016
One Shot OmniMAX 2 T1 <sup>R</sup>	20 x 50 µL	> 5 x 10 <sup>9</sup>	C	•	•	•	•	C8540-03
One Shot TOP10	20 x 50 µL	> 1 x 10 <sup>9</sup>	C	—	•	•	•	C4040-03
One Shot TOP10	10 x 50 µL	> 1 x 10 <sup>9</sup>	C	—	•	•	•	C4040-10
One Shot TOP10F'	20 x 50 µL	> 1 x 10 <sup>9</sup>	C	—	•	•	•	C3030-03
ElectroMAX DH10B T1 <sup>R</sup>	5 x 100 µL	> 1 x 10 <sup>10</sup>	E	•	•	•	•	12033-015
Library Efficiency DH5α	5 x 200 µL	> 1 x 10 <sup>8</sup>	C	—	•	•	•	18263-012
Subcloning Efficiency DH5α	4 x 500 µL	> 1 x 10 <sup>6</sup>	C	—	•	•	•	18265-017
<b>Fast growth</b>								
One Shot Mach1 T1 <sup>R</sup>	20 x 50 µL	> 1 x 10 <sup>9</sup>	C	•	•	•	•	C8620-03
MultiShot StripWell Mach1 T1 <sup>R</sup>	1 x 96-well plate	> 1 x 10 <sup>9</sup>	C	•	•	•	•	C8696-01

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<b>High-throughput cloning</b>								
MultiShot StripWell TOP10	1 x 96-well plate	> 1 x 10 <sup>8</sup>	C	—	•	•	•	C4096-01
MultiShot TOP10	5 x 96-well plates	> 1 x 10 <sup>8</sup>	C	—	•	•	•	C400-05
<b>High-efficiency transformation and library construction</b>								
MegaX DH10B T1 <sup>R</sup> Electrocomp	5 x 100 μL	> 3 x 10 <sup>10</sup>	E	•	•	•	•	C6400-03
One Shot OmniMAX 2 T1 <sup>R</sup>	20 x 50 μL	> 5 x 10 <sup>9</sup>	C	•	•	•	•	C8540-03
ElectroMAX DH10B T1 <sup>R</sup>	5 x 100 μL	> 1 x 10 <sup>10</sup>	E	•	•	•	•	12033-015
ElectroMAX DH10B	5 x 100 μL	> 1 x 10 <sup>10</sup>	E	—	•	•	•	18290-015
ElectroMAX DH5α-E	5 x 100 μL	> 1 x 10 <sup>10</sup>	E	—	•	•	•	11319-019
<b>Cloning unstable DNA</b>								
ElectroMAX Stbl4	5 x 100 μL	> 5 x 10 <sup>9</sup>	E	—	•	•	•	11635-018
One Shot Stbl3	20 x 50 μL	> 1 x 10 <sup>8</sup>	C	—	•	—	—	C7373-03
MAX Efficiency Stbl2	5 x 200 μL	> 1 x 10 <sup>9</sup>	C	—	•	•	—	10268-019
<b>Protein expression</b>								
One Shot BL21 (DE3)	20 x 50 μL	> 1 x 10 <sup>8</sup>	C	—	—	—	—	C6000-03
One Shot BL21(DE3)pLysE	20 x 50 μL	> 1 x 10 <sup>7</sup>	C	—	—	—	—	C6565-03
One Shot BL21(DE3)pLysS	20 x 50 μL	> 1 x 10 <sup>8</sup>	C	—	—	—	—	C6060-03
One Shot BL21(DE3)pLysS	10 x 50 μL	> 1 x 10 <sup>8</sup>	C	—	—	—	—	C6060-10
One Shot BL21 Star (DE3)	20 x 50 μL	> 1 x 10 <sup>8</sup>	C	—	—	—	—	C6010-03
One Shot BL21 Star (DE3) pLysS	20 x 50 μL	> 1 x 10 <sup>8</sup>	C	—	—	—	—	C6020-03
One Shot BL21-A1	20 x 50 μL	> 1 x 10 <sup>8</sup>	C	—	—	—	—	C6070-03
<b>ssDNA propagation</b>								
ElectroMAX DH12S	5 x 100 μL	> 1 x 10 <sup>10</sup>	E	—	•	—	•	18312-017
<b>Preparing unmethylated DNA</b>								
One Shot INV110	20 x 50 μL	> 1 x 10 <sup>6</sup>	C	•	—	•	•	C7171-03
<b>Bacmid creation</b>								
MAX Efficiency DH10Bac	5 x 100 μL	> 1 x 10 <sup>8</sup>	C	—	—	—	•	10361-012
<b>Cre-lox recombination</b>								
One Shot PIR1	10 x 50 μL	> 1 x 10 <sup>9</sup>	C	—	•	•	—	C1010-10
One Shot PIR2	10 x 50 μL	> 1 x 10 <sup>8</sup>	C	—	•	•	—	C1111-10
<b>ccdB vector propagation</b>								
One Shot <i>ccdB</i> Survival 2 T1 <sup>R</sup> Competent Cells	11 x 50 μL	> 1 x 10 <sup>9</sup>	C	•	•	•	•	A10460

\* Transformants/μg pUC19 DNA.

For a complete listing of all of Invitrogen™ competent cell strains, go to [thermofisher.com/compcells](http://thermofisher.com/compcells)

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