

# Competent cells selection guide

	Blue-white capable	Phage T1 resistant	Restriction-deficient (End A-/RecA)	Clone methylated (RMS)	Inducible plasmid copy number	F episome	Antibiotic resistance	Electrocompetent efficiency	Chemically competent efficiency	
<b>Routine cloning and library construction</b>										
<b>E. cloni® 10G (Classic)</b>	✓	✓	✓	✓	✓	∅	∅	Str	≥5 × 10 <sup>9</sup>	10 <sup>6</sup> -10 <sup>9</sup>
<b>E. cloni 10G (Elite)</b>	✓	✓	✓	✓	✓	∅	∅	Str	≥2 × 10 <sup>10</sup>	–
<b>E. cloni 10G (Supreme)</b>	✓	✓	✓	✓	✓	∅	∅	Str	≥4 × 10 <sup>10</sup>	–
<b>E. cloni 10G F' (Elite)</b>	✓	✓	✓	✓	✓	∅	✓	Str	≥2 × 10 <sup>10</sup>	–
<b>E. cloni 5-alpha</b>	✓	✓	✓	∅	∅	∅	∅	–	–	≥1 × 10 <sup>8</sup>
<b>Unstable inserts or toxic gene products</b>										
<b>Copycutter™ EPI400™</b>	✓	✓	✓	✓	✓	✓	∅	Str	≥1 × 10 <sup>10</sup>	≥1 × 10 <sup>7</sup>
<b>Large inserts, plasmids, or fosmids</b>										
<b>TransforMax™ EC100™</b>	✓	∅	✓	✓	✓	∅	∅	Str	≥1 × 10 <sup>10</sup>	≥5 × 10 <sup>8</sup>
<b>TransforMax EPI300™</b>	✓	∅	✓	✓	✓	a	∅	Str	≥1 × 10 <sup>10</sup>	≥5 × 10 <sup>8</sup>
<b>TransforMax EPI300™-T1R</b>	✓	✓	✓	✓	✓	a	∅	Str	≥1 × 10 <sup>10</sup>	–
<b>BAC cloning</b>										
<b>BAC-Optimised Replicator™ v2.0</b>	✓	∅	✓	✓	✓	a	∅	Amp, Str	≥1 × 10 <sup>10</sup>	–
<b>E. cloni BAC-Optimised 10G</b>	✓	∅	✓	✓	✓	∅	∅	Str	≥1 × 10 <sup>10</sup>	–
<b>Phage display</b>										
<b>TG1</b>	✓	∅	∅	∅	d	∅	✓	–	≥4 × 10 <sup>10</sup>	–
<b>ER2738</b>	✓	✓	∅	∅	d	∅	✓	Tet	≥2 × 10 <sup>10</sup>	–
<b>SS320 (MC1061 F')</b>	✓	∅	∅	∅	e	∅	✓	Tet, Str	≥4 × 10 <sup>10</sup>	–
<b>MC1061 F-</b>	∅	∅	∅	∅	e	∅	∅	Str	≥4 × 10 <sup>10</sup>	–
<b>CRISPR sgRNA libraries and lentiviral plasmid cloning</b>										
<b>Endura™</b>	∅	∅	f	∅	g	∅	∅	Str	≥1 × 10 <sup>10</sup>	≥1 × 10 <sup>7</sup>

Amp, ampicillin; Cam, chloramphenicol; Str, streptomycin; Tet, tetracycline

a: Requires OriV vectors (e.g., CopyRight® and pCCFOS)

b: Requires IPTG

c: Only with pJAZZ® vectors

d: mcrB- only; not suitable for cloning eukaryotic genomic DNA

e: mcrA- mcrB-; not suitable for cloning eukaryotic genomic DNA

f: RecA13 only

g: mcrB- mrr-; not suitable for cloning eukaryotic genomic DNA

Background expression control  
 Primary promoter  
 Low endotoxin  
 Antibiotic resistance  
 Electrocompetent: efficiency  
 Chemically competent: efficiency

Protein expression: routine						
E. cloni EXPRESS BL21(DE3)	T7	∅	∅	–	≥5 × 10 <sup>9</sup>	≥1 × 10 <sup>7</sup>
HI-Control™ BL21(DE3)	T7	✓	∅	Gen	–	≥1 × 10 <sup>7</sup>
HI-Control™ 10G	P <sub>lac</sub> , P <sub>lac</sub> <sup>1</sup> P <sub>trc</sub> , T5 <sub>lac</sub> rhaP <sub>BAD</sub>	✓	∅	Gen, Str	–	≥1 × 10 <sup>9</sup>
ClearColi® BL21(DE3)	T7	∅	✓	–	≥1 × 10 <sup>9</sup>	–
Protein expression: toxic products						
OverExpress™ C41(DE3)	T7	∅	∅	–	≥1 × 10 <sup>9</sup>	≥1 × 10 <sup>6</sup>
OverExpress C41(DE3) pLysS	T7	✓	∅	Cam	–	≥1 × 10 <sup>6</sup>
OverExpress C43(DE3)	T7	∅	∅	–	≥1 × 10 <sup>9</sup>	≥1 × 10 <sup>6</sup>
OverExpress C43(DE3) pLysS	T7	✓	∅	Cam	–	≥1 × 10 <sup>6</sup>

Cam, chloramphenicol; Gen, gentamicin; Str, streptomycin; rhaPBAD, rhamnose-inducible promoter

Not finding a strain suitable for your application? Do you need a different size or bulk purchase?

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