Competent cells selection guide

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

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

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GENOMIC ANALYSIS BY LGC

	Primary promoter	Background expression control	Low endotoxin	Antibiotic resistance	Electrocompetent: efficiency	Chemically competent: efficiency
Protein expression: routine						
E. cloni EXPRESS BL21(DE3)	T7	Ø	Ø	–	≥5 × 10^9	≥1 × 10^7
HI-Control™ BL21(DE3)	T7	✓	Ø	Gen	–	≥1 × 10^7
HI-Control™ 10G	P_{lac}, P_{tac}, P_{trc}, $T5_{lac}$ $rhaP_{BAD}$	✓	Ø	Gen, Str	–	≥1 × 10^9
ClearColi® BL21(DE3)	T7	Ø	✓	–	≥1 × 10^9	–
Protein expression: toxic products						
OverExpress™ C41(DE3)	T7	Ø	Ø	–	≥1 × 10^9	≥1 × 10^6
OverExpress C41(DE3) pLysS	T7	✓	Ø	Cam	–	≥1 × 10^6
OverExpress C43(DE3)	T7	Ø	Ø	–	≥1 × 10^9	≥1 × 10^6
OverExpress C43(DE3) pLysS	T7	✓	Ø	Cam	–	≥1 × 10^6

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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