Choosing Invitrogen™ competent cells based on application

Is this for routine cloning and subcloning?

Yes: Routine cloning

- High transformation efficiency (cloning)
  - One Shot™ OmniMAX™ 2 T1® (5 x 10⁹ cfu/µg)
  - One Shot™ TOP10 (1 x 10⁹ cfu/µg)
  - One Shot™ DH10B™ T1® (1 x 10⁹ cfu/µg)
  - MAX Efficiency™ DH5α™ (1 x 10⁹ cfu/µg)
  - Library Efficiency™ DH5α™ (1 x 10⁹ cfu/µg)
  - One Shot™ Mach1™-T1® (1 x 10⁹ cfu/µg)

No: Specialized cloning

- Standard efficiency (propagation)
  - Subcloning Efficiency™ DH5α™ (1 x 10⁹ cfu/µg)

Is high transformation efficiency needed?

Yes: High transformation efficiency (cloning)

- One Shot™ OmniMAX™ 2 T1® (5 x 10⁹ cfu/µg)
- One Shot™ TOP10 (1 x 10⁹ cfu/µg)
- One Shot™ DH10B™ T1® (1 x 10⁹ cfu/µg)
- MAX Efficiency™ DH5α™ (1 x 10⁹ cfu/µg)
- Library Efficiency™ DH5α™ (1 x 10⁹ cfu/µg)
- One Shot™ Mach1™-T1® (1 x 10⁹ cfu/µg)

No: Standard efficiency (propagation)

- Subcloning Efficiency™ DH5α™ (1 x 10⁹ cfu/µg)

Is this for gDNA or library production?

Yes: gDNA or library production

- One Shot™ OmniMAX™ 2 T1® (>20 kb)
- ElectroMAX™ DH10B™ (>20 kb)
- ElectroMAX™ DH10B™ T1® (>20 kb)
- MegaX DH10B™ T1®
- Electrocomp™ (>100 kb)

No: Is this for unstable inserts?

Yes: Unstable inserts

- MAX Efficiency™ Stbl2™
- One Shot™ Stbl3™ (lentiviral vectors)
- MegaX DH10B™ T1®
- ElectroMAX™ Stbl4™

No: Protein production

Is this for protein production?

Yes: Protein production

- One Shot™ BL21 Star™ (DE3) (rare/no expression)
- One Shot™ BL21 (DE3) (high-level expression of recombinant proteins)
- One Shot™ BL21 (DE3)pLysE (low basal expression of T7 promoter genes)
- One Shot™ BL21 (DE3)pLysS (low basal expression, faster induction of T7 promoter genes)
- One Shot™ BL21-AI™ (best for expression of toxic proteins)

No: Is this for methylation-sensitive plasmid DNA?

Yes: Methylation-sensitive

- One Shot™ INV110

No: Gateway destination vector

- One Shot™ ccdB Survival 2 T1®

Contact technical support thermofisher.com/contact

* Electrocompetent cells
* Not for methylated or genomic DNA

High-throughput formats: MultiShot™ TOP10, MultiShot™ StripWell TOP10, MultiShot™ StripWell Mach1™

Find out more at thermofisher.com/compcells

For Research Use Only. Not for use in diagnostic procedures. © 2016, 2022 Thermo Fisher Scientific Inc. All rights reserved. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified. COL26199 1122