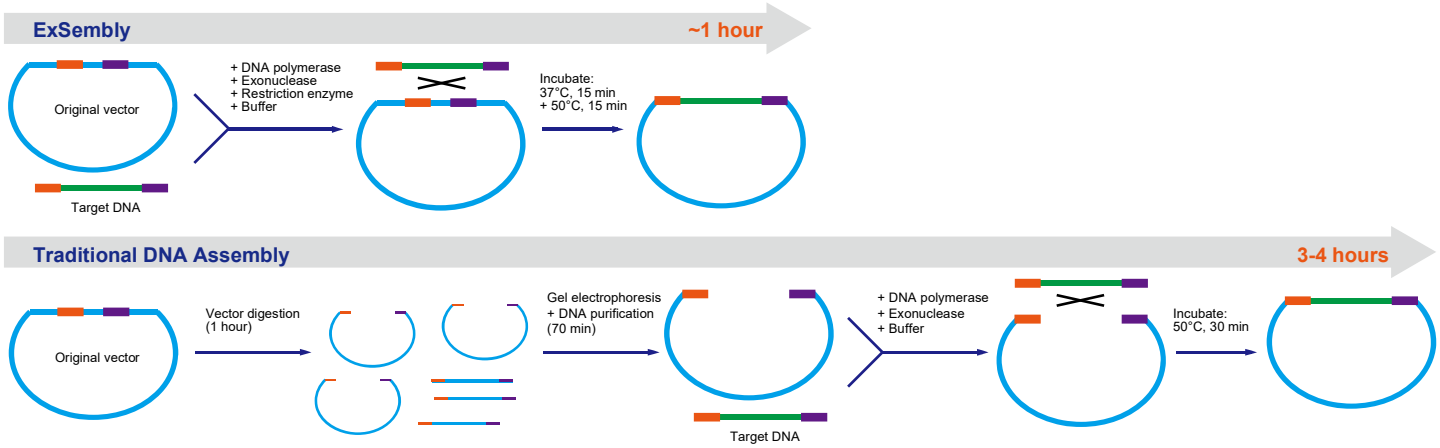
LifeSct.com
Life Scientists' Service Center

Chesapeake Genomic Systems

ExSembly™ Cloning Mix

ExSembly™ Cloning Master Mix is developed and manufactured by Chesapeake Genomic Systems, exclusively distributed by LifeSct. ExSembly™ cloning technology enables rapid, single-step, high-efficiency homology-based insertion of any amplified DNA product into a CIRCULAR vector.

- **One step**: combines circular vector linearization and homology-based assembly.
- **Rapid**: saves 2-3 hours by eliminating vector digestion and gel purification steps.
- **Efficient**: Typically >95% of colonies bear the correctly inserted DNA fragment.
- **Large scale**: accommodates up to 500 ng plasmid DNA in one reaction, resulting in more colonies.
- **Cost-effective**: eliminates vector digestion, gel electrophoresis and purification costs, saving up to 50%.



*"I have been using the **ExSembly™ Cloning Master Mix** for two years and have had great success in cloning a wide range of DNA fragments using this product. The product is extremely easy to use and makes cloning a very quick process. It is especially ideal to clone multiple DNA fragments simultaneously into a vector. Compared to other approaches and commercial products I have used in the past; this product's efficiency is very impressive. I highly recommend the ExSembly™ Cloning Mix."*

------ UMBC, Dr. Achuth Padmanabhan, Assistant Professor

Product Name	Cat. #	Size	Price
2× ExSembly™ Cloning Master Mix	M0005	10 rxn	$169

Please click the link www.lifesct.com/ExSembly for more information

Related Services

Gene Synthesis

Protein Expression

Virus Packaging

Plasmid Preperation

Contact Us

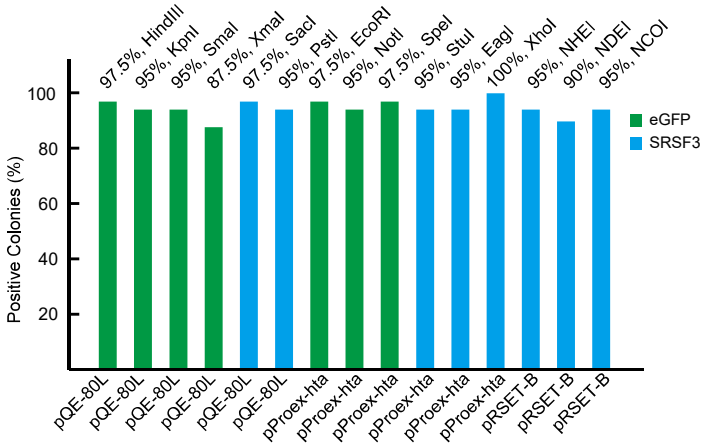
LifeSct LLC

Tel: 240-715-2985
Email: sales@lifesct.com
Website: www.lifesct.com

Case Study

Restriction enzyme compatibility

ORFs of eGFP or human SRSF3 were PCR-amplified and assembled into vectors (pQE-80L, pProex-hta, pRSET-B) using ExSembly™ Master Mix. ~200 ng vector DNA was used in each ExSembly™ reaction. ExSembly™ products were purified using a DNA mini-spin column and transformed to DH10B electrocompetent cells and plated on LB/Ampicillin plates. Forty colonies were picked from each reaction to perform colony PCR screening. Percent positive clones are shown in Figure 1 for each of 15 common restriction enzymes.



Colony PCR screening

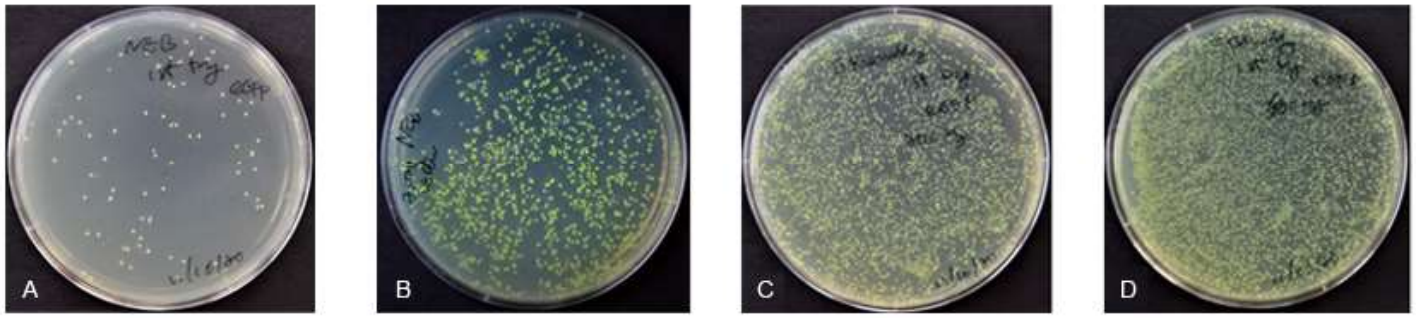
Gene name: eGFP, 684 bp; Vector: pQE-80L. 4852 bp.

5' primer: TCCGCATGCGAGCTCGGTACgcccgccatgaagatcgagt. Up case bases are DNA fragment 148-167 of pQE-80L. Lower case bases are from the 5' end of eGFPD;
3' primer: AGTCCAAGCTCAGCTAATTAtcatcgagctcgagatctgg. Up case bases are reversely complement with DNA fragment 192-211 of pQE-80L. Lower case bases are reversely complement with 3'end of eGFP.

Restriction enzymes digesting the vector: KpnI and HindIII

Colonies were screened by colony PCR using the primers listed above. Both negative and positive controls were used. The positive control using pMax-GFP as template; no template DNA was used in negative controls.

	NEB 1	NEB 2	ExSembly 1	ExSembly 2
Vector DNA used (µg)	3	3	0.2	0.6
Number of colonies	81	~1,200	~3,000	>10,000
Time spent	~3 hours	~2 hours	~1 hours	~1 hours
Positive rate tested	>90%	100% (8/8)	100% (12/12)	>90%



NEB 1: 120 ng gel purified vector and 360 ng insert (Figure A); NEB 2: 300 ng column purified vector and 300 ng insert (Figure B)

ExSembly 1: 200 ng of vector and 360 ng of insert (Figure C); ExSembly 2: 600 ng of vector and 360 ng of insert (Figure D)

*"**ExSembly™ Cloning Master Mix** works very well in my hands for almost two years. It has similar or higher efficiency compared with other assembly kits!"*

------ AAVnerGene Inc., Dr. Qizhao Wang, CTO