

# PCR Cloning Solutions

## Stably clone and maintain any DNA with our transcription-free CloneSmart® technology.

- Low backgrounds (<0.1%) eliminate the need for blue/white screening, etc.
- Lucigen's exclusive CloneSmart® transcription terminators result in much greater insert stability even when cloning an otherwise deleterious sequence.
- Elimination of LacZ/ccdB genes and promoters protects the insert from transcription.

## Small size means less interference with downstream applications:

- Vector size is ~2.0 kb for plasmids.

Vector	Application	Insert Size	Insert Site	Benefits	Level of Difficulty
<p><b>BigEasy® Long PCR Cloning Kits</b></p>	<p>Very difficult DNA</p> <p>Large inserts</p>	<p>Up to 30 kb</p>	<p>C-tailed or Blunt</p>	<p>Highest fidelity cloning system known</p> <p>Stably clone any DNA</p> <p>Kanamycin selection</p>	<p>Most Problematic DNA</p> <p>Least Problematic</p>
<p><b>GC Cloning &amp; Amplification Kit with pSMART GC LK</b></p>	<p>Problematic PCR products (from any PCR polymerase)</p>	<p>Up to 15 kb</p>		<p>More accurate than TOPO or TA cloning</p>	
<p><b>GC Cloning &amp; Amplification Kit with pSMART GC HK</b></p>	<p>General PCR cloning (from any PCR polymerase)</p>	<p>Up to 10 kb</p>	<p>C-tailed</p>	<p>Greater insert stability</p> <p>No colony screening</p> <p>No lost clones</p> <p>Includes enzymes &amp; reagents for PCR and ligation, and cells for transformation</p>	
<p><b>GC Cloning &amp; Amplification Kit with pGC Blue</b></p>	<p>General PCR cloning (from any PCR polymerase)</p> <p>Optional blue/white screening</p> <p>Transcription/expression</p>			<p>Kanamycin selection</p>	

Lucigen Kit	Competent Cells	Efficiency (cfu/ug)	Size	Cat. No.	Invitrogen	Competent Cells	Efficiency (cfu/ug)	Size	Cat No
<b>BigEasy® Long PCR Cloning Kit</b> (pJAZZ-OK Blunt)	BigEasy-TSA Electrocompetent Cells	≥ 4 X 10 <sup>10</sup>	5 10 20	43054-1 43054-2 43054-3	No Equivalent				
<b>BigEasy Long PCR Cloning Kit</b> (pJAZZ-OK GC)	BigEasy-TSA Electrocompetent Cells	≥ 4 X 10 <sup>10</sup>	5 10 20	43066-1 43066-2 43066-3	No Equivalent				
<b>GC Cloning &amp; Amplification Kit</b> (pSMART GC LK)	10G SUPREME Electrocompetent Cells	4 X 10 <sup>10</sup>	10 20	40737-1 40737-2	No Equivalent				
	10G ELITE Electrocompetent Cells	2 X 10 <sup>10</sup>	10 20	40736-1 40736-2					
	10G Chem Comp	1 X 10 <sup>9</sup>	10 20	40738-1 40738-2					
<b>GC Cloning &amp; Amplification Kit</b> (pSMART GC HK)	10G SUPREME Electrocompetent Cells	4 X 10 <sup>10</sup>	10 20	40732-1 40732-2	No Equivalent				
	10G ELITE Electrocompetent Cells	2 X 10 <sup>10</sup>	10 20	40731-1 40731-2					
	10G Chem Comp	1 X 10 <sup>9</sup>	5 10 20	40733-0 40733-1 40733-2					
<b>GC Cloning &amp; Amplification Kit</b> (pGC Blue)	10G EC SUPREME Electrocompetent Cells	4 X 10 <sup>10</sup>	10 20	40741-1 40741-2	No Equivalent				
	10G EC ELITE Electrocompetent Cells	2 X 10 <sup>10</sup>	10 20	40742-1 40742-2					
	10G Chem Comp	1 X 10 <sup>9</sup>	5 10 20	40743-0 40743-1 40743-2		TOPO TA Cloning Kit	TOP10 EC	1 X 10 <sup>9</sup>	40
						with pCR2.1	1 X 10 <sup>9</sup>	40	<b>K4500-40</b>
					Zero Blunt Cloning Kit with pCR Blunt	TOP10 Chem	1 X 10 <sup>9</sup>	20 40	<b>K2700-20</b> <b>K2700-40</b>

### Lucigen's GC Cloning Advantages vs Invitrogen

- Highest yields of recombinants (kits with SUPREME and ELITE cells).
- Clone larger PCR products: up to 10-12 kb vs. 2-3 kb with TOPO TA cloning.
- Much greater insert stability: Successfully clone AT-rich sequences, toxic genes and nucleotide repeats.
- No screening needed: pSMARTGC transformation efficiencies are >99%.
- Much better performance and value.

\*TOPO and TA Cloning are registered trademarks of Invitrogen Corporation.

### ORDER INFORMATION

PCR Cloning	Cat. No.	Size
<b>BigEasy Long Cloning Kit</b> (pJAZZ-OK Blunt) with BigEasy-TSA Electrocompetent Cells	43054-1	5 rxns
	43054-2	10 rxns
	43054-3	20 rxns
<b>BigEasy Long PCR Cloning Kit</b> (pJAZZ-OK GC) with BigEasy-TSA Electrocompetent Cells	43066-1	5 rxns
	43066-2	10 rxns
	43066-3	20 rxns
<b>GC Cloning &amp; Amplification Kit (pSMART GC LK)</b> with 10G SUPREME Electrocompetent Cells	40737-1	10 rxns
	40737-2	20 rxns
with 10G ELITE Electrocompetent Cells	40736-1	10 rxns
	40736-2	20 rxns
with 10G Chemically Competent Cells	40738-1	10 rxns
	40738-2	20 rxns
<b>GC Cloning &amp; Amplification Kit (pSMART GC HK)</b> with 10G SUPREME Electrocompetent Cells	40732-1	10 rxns
	40732-2	20 rxns
with 10G ELITE Electrocompetent Cells	40731-1	10 rxns
	40731-2	20 rxns
with 10G Chemically Competent Cells	40733-0	5 rxns
	40733-1	10 rxns
	40733-2	20 rxns
<b>GC Cloning &amp; Amplification Kit (pGC Blue)</b> with 10G ELITE Electrocompetent Cells	40742-1	10 rxns
	40742-2	20 rxns
with 10G SUPREME Electrocompetent Cells	40741-1	10 rxns
	40741-2	20 rxns
with 10G Chemically Competent Cells	40743-0	5 rxns
	40743-1	10 rxns
	40743-2	20 rxns



#### To order contact:

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