RESOURCES

Cloning

cDNA kit

Ambion's (Austin, TX) Cells-to-cDNA kit produces cDNA from cultured cells in less than 2 hours by eliminating the RNA isolation step. It is ideal for performing RT-PCR on small numbers of cells and numerous cell samples. The kit is also adaptable to highthroughput analysis using 96-well plates. The cDNA produced is suitable for any PCRrelated application, including quantitative PCR, differential display, cloning, and probe generation for gene assays. http://www.ambion.com RIN: 1233



Cloning system

The Echo Cloning System brings Invitrogen's (San Diego, CA) TOPO cloning technology and expression systems together with a novel univector plasmid-fusion system, for fast, reliable, and hassle-free cloning of any gene into multiple expression vectors. The accuracy, speed, and productivity gains are made possible because Echo cloning eliminates the need for traditional subcloning. Scientists clone and sequence the construct with their gene of interest (GOI) only once. The clone is then recombined or "echoed" into other expression vectors-from bacterial to mammalian—simultaneously. Scientists can rapidly insert their GOI into advanced expression vectors and achieve high-level expression in multiple host systems. The system is offered in 10-reaction kits. The Echo Cloning and Expression Kit contains the TOPO cloning-ready donor vector pUni/V5-His-TOPO, One Shot competent cells, an Echo-Adapted Expression Vector, and Cre Recombinase.

http://www.invitrogen.com RIN: 1234

Adenovirus production kit

Quantum Biotechnologies' (Montreal, Quebec, Canada) Adeno-Quest system, based on recombinant Ad production in 293 cells, offers complete recombinant Ad production. Now the AdEasy system makes the production of recombinant Ad even more accessible to any molecular biology lab equipped with a cell culture facility. Based on recombination in bacteria instead of mammalian cells, the production of a single recombinant Ad allows for the design of an experimental protocol for the study of a recombinant protein in virtually any cell or tissue. With AdEasy transfer vectors, it is now possible to clone up to 7.5 kb of foreign DNA. http://www.qbi.com

RIN: 1235



Universal cloning

Gateway Cloning Technology from Life Technologies (Rockville, MD) is a universal cloning system that provides a rapid, efficient route to functional analysis, protein expression, and cloning/subcloning of DNA segments. It replaces restriction enzyme digestion, ligations, gel electrophoresis and analysis, and additional PCR amplification with the fidelity and efficiency of phagelambda site-specific recombination, allowing the parallel transfer of any number of genes into or out of multiple expression systems simply by mixing DNAs, adding proteins, and incubating.

http://www.lifetech.com RIN: 1236



Plasmid preparation

The PerfectPrep Plasmid 96 Spin kit from Eppendorf-Netheler-Hinz (Hamburg, Germany) allows for simultaneous isolation of plasmid DNA from up to 192 bacterial clones in approximately 2 hours. The plasmid DNA can be used for all molecular biology applications immediately after elution with no additional precipitation, as well as for automated sequencing, transfection, blotting, or cloning.

http://www.eppendorf.com RIN: 1237

Target protein overexpression

New England Biolabs' (Beverly, MA) IMPACT-CN System (Intein Mediated Purification with an Affinity Chitin-binding Tag) is a protein purification system distinguishishable from other methods by its ability to purify, in a single chromatographic step, a native recombinant protein without the use of a protease. The system contains expression vectors that allow fusion of the cleavable intein tag to either the C-terminus or N-terminus of the target protein, maximizing the probability of successful expression and purification of a target protein. Cloning of the same amplified target gene in either fusion construction is possible, as is cloning of a target gene immediately adjacent to the intein cleavage site. This results in the purification of a native target protein without any vector-derived extra residues after the cleavage.

http://www.neb.com RIN: 1238



High-throughput purification

With NucleoSpin Multi-96 Plasmid and PCR kits from Clontech (Palo Alto, CA), users can purify up to 96 nucleic acid samples on a single multiwell plate, reducing handling and preparation time. The Multi-96 Plasmid kit contains special filter plates for quickly clearing bacterial lysates of cellular debris without centrifugation, speeding the purification process to less than 90 minutes. The Multi-96 PCR kit features specialmembrane columns that bind PCR fragments larger than 100 bp. Unwanted PCR primers and primer-dimers are washed through the column prior to elution, for processing in under 60 minutes. http://www.clontech.com **RIN: 1239**