



Cloning Kit

Gibson Assembly Cloning allows for the insertion of one or more DNA fragments into virtually any location of any vector without the need for compatible restriction sites. In a single

round of cloning, join multiple DNA fragments (1–15) to create seamless constructs without subcloning. With easy reaction setup and less than 5 min of hands-on time, go from DNA fragments to transformation-ready constructs in an hour or less. Gibson Assembly Cloning achieves cloning efficiencies of up to 95%. Three kits are available: Gibson Assembly HiFi 1-Step Kit, Gibson Assembly Ultra Kit, and Gibson Assembly Site-Directed Mutagenesis Kit.

SGI-DNA

For info: 855-474-4362

www.sgidna.com/reagents.html

Minicircle Services

When you want sustained transgene expression without the risks of introducing exogenous DNA—such as for developing animal models or pioneering new gene-therapy approaches—minicircle technology is a great option. But many labs don't have either the time or the in-house expertise to spend constructing and producing minicircles—which is why we offer Minicircle Cloning & Production Services. Delivered by our experienced scientific team, who routinely produce minicircles for large pharma partners, our services are very customizable. We can provide a complete end-to-end experience—we clone your complementary DNA (cDNA), microRNA (miRNA), or small hairpin RNA (shRNA) into one of our highly regarded minicircle parental vectors and assemble large quantities of minicircles—or only parts of the cloning and production process. We can even customize the parental vector for you.

System Biosciences

For info: 888-266-5066

www.systembio.com

cDNA Clones

TrueORF Gold is OriGene's collection of premium complementary DNA (cDNA) clones that have passed the ultimate tests: sequence verification and protein expression validation. Each TrueORF Gold clone has been used to transfect human cell lines for protein expression. In fact, OriGene has produced over 12,000 overexpression lysates from TrueORF-transfected human embryonic kidney 293 (HEK293) cells and subsequently purified over 5,000 human proteins from those cells. Each clone is fully sequenced with downloadable chromatogram files posted online. View and analyze the sequences before purchasing, and you will never worry about mutations when using TrueORF Gold. All clones are available for next-day shipment. Why spend weeks constructing a cDNA clone or having it synthesized? TrueORF Gold accelerates your research, experiment, degree, publication, or grant application, and gets you there faster. There is no need for subcloning or plasmid preparation. Order a TrueORF Gold clone today, and start your experiment tomorrow.

OriGene Technologies

For info: 888-267-4436

www.origene.com

HDR Plasmid Donor Kits

The Edit-R HDR Plasmid Donor Kits enable you to easily create a plasmid donor for insertion of either the mKate2 or enhanced green fluorescent protein (EGFP) fluorescence reporters, or a custom gene sequence of your choice, into almost any genomic location. Gene engineering using CRISPR/Cas9 relies on two pathways for repair of double-strand breaks in DNA: nonhomologous end joining (NHEJ) and homology-directed repair (HDR). Precise repair of DNA in order to generate a specific mutation or insert or remove a desired sequence requires the HDR pathway, and depends on the availability of a DNA donor template that can be used to repair the DNA break. The kits enable fast, efficient assembly of a DNA donor plasmid, and contain validated protocols for design, assembly, and confirmation of the plasmid.

Dharmacon

For info: 800-235-9880

dharmacon.horizondiscovery.com

Cell-Free Linear DNA Expression Kit

Arbor Biosciences' myTXTL Linear DNA Expression Kit allows for the use of linear DNA, including PCR products, gene fragments, and synthesized DNA, as input for transcription (TX) and translation (TL) in an *Escherichia coli*-based cell-free platform. Removing the requirements for cloning genes into plasmids, transforming cells, and further selecting for clones will greatly accelerate the design-build-test cycle for synthetic biology research and sampling in protein-screening applications. Created for use in pilot-scale studies as well as high-throughput analysis on automated liquid-handling platforms, myTXTL Linear DNA Expression Kit delivers a complete solution for protein research and analysis. The *E. coli*-based system is a ready-to-use master mix containing all the critical components required for cell-free protein production. End-users simply need to add their linear DNA to the master mix and incubate for as little as 30 min before analyzing the expressed product.

Arbor Biosciences

For info: 734-998-0751

www.arborbiosci.com

Human Exosomes

ZenBio offers fully characterized exosomes from placental mesenchymal stem cells, cord serum, and custom isolation. Exosomes are membrane vesicles stored intracellularly in endosomal compartments, and are secreted when these structures fuse with a cell's plasma membrane. They contain protein, DNA, and RNA, making them an attractive vector for paracrine signals delivered by stem cells. They may also be "loaded" with predetermined proteins and nucleic acid to achieve a desired effect, and can be stored as an off-the-shelf product with the potential to circumvent many of the limitations of viable cells for therapeutic applications in regenerative medicine. In vitro, exosomes from preadipocytes stimulate cell proliferation in a wound-healing model. In vivo, adipose-graft-derived exosomes have been shown to be a promising tool for skin repair and remodeling.

ZenBio

For info: 919-547-0692

www.zen-bio.com/products/cells/human-exosomes.php

Electronically submit your new product description or product literature information! Go to www.sciencemag.org/about/new-products-section for more information.

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