The Next Generation of DNA Assembly and Cloning

NEBuilder® HiFi DNA Assembly

The next generation of DNA assembly and cloning has arrived. With NEBuilder HiFi DNA Assembly, you’ll enjoy virtually error-free joining of DNA fragments. More efficient assembly is now possible, even with larger fragments, low inputs, or 5’- and 3’-end mismatches. Additionally, use NEBuilder HiFi to bridge two dsDNA fragments with a ssDNA oligo. Save time with less screening or re-sequencing, and benefit from no licensing fee requirements from NEB when choosing NEBuilder products.

Request a free sample* at www.NEBuilderHiFi.com

NEBuilder HiFi DNA Master Mix offers improved fidelity over Gibson Assembly Master Mix

Fidelity of assembled products was compared between NEBuilder HiFi DNA Assembly Master Mix (NEB #E2621) and Gibson Assembly Master Mix (NEB #E2611). Experiments were performed using the various fragment and vector sizes, following suggested protocols. Experiments B and C vary because sequences of fragments are different. Experiments D and F were performed with fragments containing 3’-end mismatches.

* While supplies last. Offer valid in the US only. Limit one sample per customer.

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GIBSON ASSEMBLY® is a registered trademark of Synthetic Genomics, Inc.
Pushing the limits of midi, maxi, and giga plasmid purification

Transfection-ready plasmid DNA in 18 minutes

bind
rapid loading onto a spin-column via vacuum or centrifuge

wash
for ultra-pure endotoxin free plasmid DNA

elute
transfection ready plasmid DNA

<table>
<thead>
<tr>
<th></th>
<th>Max. Recovery</th>
<th>Processing Time</th>
<th>Size (Cat. No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midiprep</td>
<td>300 µg</td>
<td>18 min.</td>
<td>25 Preps (D4200)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>50 Preps (D4201)</td>
</tr>
<tr>
<td>Maxiprep</td>
<td>1200 µg</td>
<td>18 min.</td>
<td>10 Preps (D4202)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>20 Preps (D4203)</td>
</tr>
<tr>
<td>Gigaprep</td>
<td>10 mg</td>
<td>40-50 min.</td>
<td>5 Preps (D4204)</td>
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</tbody>
</table>

Plasmid DNA concentration and yield from the ZymoPURE™ Maxiprep kit compared to two separate kits from supplier Q. Plasmid DNA (pGL3®) was isolated from 150 ml of JM109 E. coli culture grown overnight following the manufacturer’s suggested protocol (in duplicate). One (1) µl of eluted plasmid DNA was visualized post agarose gel electrophoresis. M, ZR 1 kb DNA Marker (Zymo Research).

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KLAUS J. JACOBS RESEARCH PRIZE

The Prize of 1 Million Swiss Francs awards outstanding scientific contributions of individuals from all disciplines aiming at the improvement of young people’s development and perspectives worldwide. It will be awarded in Zurich on December 4th, 2015.

Nominations can be submitted by e-mail by 15 March 2015 to award@jacobsfoundation.org. Self-nominations cannot be accepted.

For the nomination form and details of the nomination procedure, please visit: www.jacobsfoundation.org/awards/research-prize-2015-2

<table>
<thead>
<tr>
<th>NOMINATIONS WILL BE REVIEWED BY THE PRIZE JURY</th>
<th>PRIZE RECIPIENTS TO DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jürgen Baumert</td>
<td>2009 Laurence D. Steinberg</td>
</tr>
<tr>
<td>Jere R. Behrman</td>
<td>2010 Terrie E. Moffitt and Avshalom Caspi</td>
</tr>
<tr>
<td>Francesco C. Billari</td>
<td>2013 Michael Tomasello</td>
</tr>
<tr>
<td>Uta Frith</td>
<td>2012 Dante Cicchetti</td>
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<tr>
<td>Kathleen Kiernan</td>
<td>2013 Greg J. Duncan</td>
</tr>
<tr>
<td>Terrie E. Moffitt</td>
<td>2014 Michael J. Meaney</td>
</tr>
<tr>
<td>Anne C. Petersen</td>
<td></td>
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</tbody>
</table>
Multiplexing System
The AlphaPlex reagent technology is a homogeneous, all-in-one-well multiplexing reagent system for performing ultrasensitive immunoassay analyses, while providing research professionals with more data in less time and with minimal human intervention. AlphaPlex reagents draw upon PerkinElmer’s AlphaLISA technology and are designed to extract more information from each assay by simultaneously quantifying multiple analytes in a single well. Based on PerkinElmer’s proven Alpha Technology, an alternative to enzyme-linked immunosorbent assays, AlphaPlex reagents are a homogeneous luminescent proximity technology. When the Donor and Acceptor beads are brought together, a cascade of chemical reactions is set in motion, causing a greatly amplified signal. By using multiple Acceptor beads which emit different wavelengths, multiple analytes can be detected.

PerkinElmer
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Scanning Electron Microscope
The new Syncerity back-illuminated, deep-cooled CCD cameras with ultraviolet-visible (UV-Vis) and NIR-enhanced 2,048 x 70 sensors come equipped with a front illuminated 1,024 x 256 CCD sensor for UV-Vis-NIR applications. Its high-resolution 14 µm pixel size makes it ideal for Raman instrumentation. The camera offers ultralow etaloning and more than 40% Quantum Efficiency at 1,000 nm for the NIR version while the UV-Vis version exhibits a 60% QE at 250 nm. The Syncerity BI UV-Vis and BI NIR offer a broad spectral response for increased versatility. Its lifetime vacuum warranty, compact size, and sensor format make the Syncerity BI NIR and BI UV-Vis, the ideal candidate for microspectroscopy applications. The Syncerity is a research-grade spectroscopy camera that combines affordability, performance, and versatility for OEM as well as research applications. Ruggedized connectors ensure overall system integrity in industrial environments, and its all metal sealed technology provides a permanent vacuum which comes with a lifetime maintenance-free warranty.

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www.horiba.com/scientific

Full High-Definition Cameras
Life-like digital microscopy is now a reality with the DP27 and DP22 digital cameras. Both cameras deliver fluid imaging at full high-definition resolution via a USB 3.0 interface and enable easy optimization for each and every application with three distinct modes. Researchers can enjoy visualization on a monitor that is virtually identical to that of the oculars. The cameras offer a detailed full high-definition live image with 30 fps for the DP22 and 22 fps for the DP27. The progressive readout subsequently ensures a fluid and true-to-life experience, ideal for both analysis and viewing comfort. Moreover, when precise focusing of intricate samples is necessary, the DP27 can provide a fast 15 fps live image at 5 megapixels, allowing the user to effectively zoom in directly on the display. Addressing specific requirements, both cameras deliver their full image quality also in a stand-alone configuration, with the new DP2-SAL controller directly connecting the camera to a monitor.

Olympus
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www.olympus-europa.com/microscopy

Exome Array
The CytoSure Medical Research Exome Array is highly targeted and exon-focused, enabling the accurate detection of medical research relevant microdeletions and microduplications. The high-density array (1x1M) contains over 4,600 hand-curated genes, which have been grouped into disease- and syndrome-specific panels. This research-validated gene content can also be customized for varying array formats (2x400K, 4x180K, or 8x60K) and diseases, enabling researchers to create bespoke solutions to suit both their content and throughput requirements. OGT’s new array meets the needs of the medical research community by providing coverage of hand-curated, medically relevant genes on one array, enabling the detection of single or multiple exonic copy number variations (CNVs). As such, the array is an ideal complement to other genomic technologies, such as next generation sequencing, to provide accurate analysis of the full mutation spectrum.

Oxford Gene Technology
For info: +44-(0)-1865-856826
www.ogt.com

Image Databasing Software
The new server-based image databasing software ZEN browser aids users in storage, filing, and organization, and backup of large digital data sets, making the use of these data sets reliable and easy. This technology, invaluable to users in fields such as pathology research, provides storage and organization both in the lab and on the go for large virtual slide databases. The intuitive web interface allows users to organize virtual microscopy data online and across platforms. The software can be accessed through any Internet browser, and is password protected for security purposes. An additional user management function restricts access to authorized individuals only, while allowing others to view images without administrative rights. All images are filed together with relevant metadata and customizable supporting documents. Access and permissions can be individually assigned, allowing users to customize how data is shared and keep information organized.

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Advances in Brain Cancer Research
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May 27-30, 2015 • Washington, DC

Metabolism and Cancer
Co-Chairpersons: Ralph J. DeBerardinis, David M. Sabatini, and Almut Schulze
June 7-10, 2015 • Bellevue, WA

Methods in Cancer Biostatistics Workshop:
Clinical Trial Designs for Targeted Agents
Chairperson: Steven Piantadosi
June 7-13, 2015 • Lake Tahoe, CA

AACR Precision Medicine Series: Integrating Clinical Genomics and Cancer Therapy
Co-Chairpersons: Charles L. Sawyers, Elaine R. Mardis, and Arul M. Chinnaiyan
June 13-16, 2015 • Salt Lake City, UT

EACR-AACR-SIC Special Conference on Anticancer Drug Action and Drug Resistance:
From Cancer Biology to the Clinic
Co-Chairpersons: Richard M. Marais, Pasi Jänne, and Riccardo Dolcetti
June 20-23, 2015 • Florence, Italy

Chromatin and Epigenetics in Cancer
Co-Chairpersons: Peter A. Jones, Sharon Y. R. Dent, and Charles W. M. Roberts
September 24-27, 2015 • Atlanta, GA

CRI-CIMT-EATI-AACR The Inaugural International Cancer Immunotherapy Conference: Translating Science into Survival
September 27-30, 2015 • New York, NY

Advances in Breast Cancer Research
Co-Chairpersons: Matthew J. Ellis, Charles M. Perou, and Jane E. Visvader
October 17-20, 2015 • Bellevue, WA

Advances in Ovarian Cancer
Co-Chairpersons: Kathleen R. Cho, Douglas A. Levine, and Benjamin G. Neel
October 17-20, 2015 • Orlando, FL

Fourth AACR International Conference on Frontiers in Basic Cancer Research
Chairperson: M. Celeste Simon;
Co-Chairpersons: James P. Allison, John E. Dick, Nathanael S. Gray, and Victor E. Velculescu
October 23-26, 2015 • Philadelphia, PA

Basic Science of Sarcomas
Co-Chairpersons: Robert G. Maki, Angelo Paolo Dei Tos, Jonathan A. Fletcher, Lee J. Helman, and Brian Van Tine
November 3-4, 2015 • Salt Lake City, UT

New Horizons in Cancer Research
Co-Chairpersons: Lewis C. Cantley and Carlos L. Arteaga
November 2015 • Shanghai, China

AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics
Scientific Committee Co-Chairpersons: Levi A. Garraway, Lee J. Helman, and Jean-Charles Soria
November 5-9, 2015 • Boston, MA

Pediatric Oncology
Co-Chairpersons: Scott Armstrong, Charles G. Mullighan, Kevin M. Shannon, and Kimberly Stegmaier
November 9-12, 2015 • Fort Lauderdale, FL

Developmental Biology and Cancer
Co-Chairpersons: Hans Clevers, Stuart Orkin, and Suzanne Baker
November 30-December 3, 2015 • Boston, MA

Tumor Metastasis
Co-Chairpersons: Bruce R. Zetter, Melody A. Swartz, and Jeffrey W. Pollard
November 30-December 3, 2015 • Austin, TX

Noncoding RNAs and Cancer
Co-Chairpersons: Howard Y. Chang, Jeannie T. Lee, Joshua Mendell
December 4 - 7, 2015 • Boston, MA

www.AACR.org/Calendar