

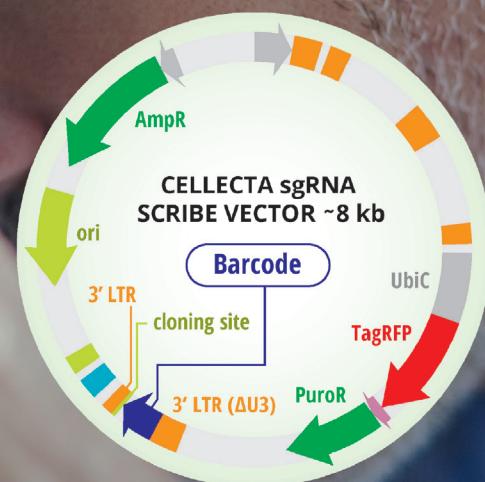


COLLECTA

# CloneTracker™ XP Lentiviral Barcode Libraries

**Genetic barcodes for *in vitro* and *in vivo* cell tracking applications.**

- Stably label cell populations with up to 10 million unique, error-tolerant barcodes
- Expressed in mRNA, compatible with single-cell RNA-seq
- Fluorescent and chemiluminescent reporters available



**Learn how CloneTracker Barcode products can help you track cell populations and clonal cell progeny. Visit [www.collecta.com](http://www.collecta.com) today.**

## Who we are

Collecta is a leading provider of genomic products and services. Our functional genomics portfolio includes gene knockout and knockdown screens, custom and genome-wide CRISPR and RNAi libraries, construct services, cell engineering, NGS kits and targeted expression profiling products and services.

**We can help your discovery efforts.**

[www.collecta.com](http://www.collecta.com)   [info@collecta.com](mailto:info@collecta.com)   +1 877-938-3910 or +1 650-938-3910

 COLLECTA

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# Custom PNA Synthesis

PNA (Peptide Nucleic Acid) is an artificially synthesized polymer similar to DNA or RNA. The various purine and pyrimidine bases are linked to the backbone by methylene carbonyl bonds as in peptides. Since PNA contains no charged phosphate groups, the binding between PNA and DNA is stronger than that between DNA and DNA due to the lack of electrostatic repulsion. PNA is resistant to DNases and proteases, and is extremely stable in vivo as well as in vitro.

## PNA Applications

- Sequence specific PCR blocker (PNA clamp)
- FISH probes for telomere, centromere, gene specific probes, infection test
- Anti-sense/ anti-microbial reagents
- miRNA inhibitors
- Double strand DNA invasion & capture
- Microarray probes

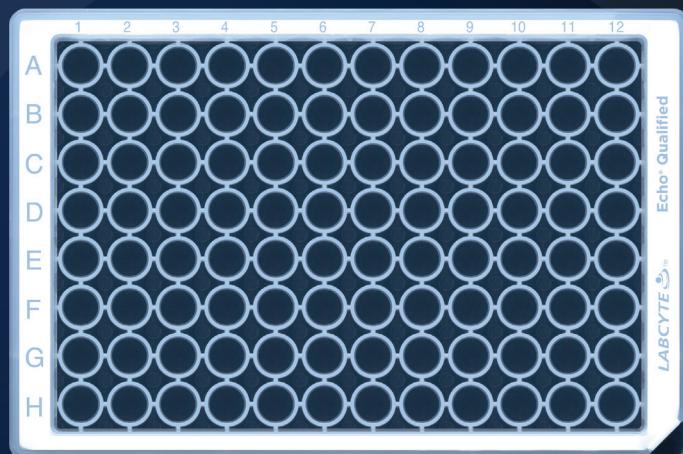


## PNA Order

- The price of custom oligo is dependent on the length, amount and label
- HPLC and MALDI-TOF data will be provided
- Synthesis scales: 50 nmole, 100 nmole, and 200 nmole
- Purity: >90%, and >95%
- Turn-around: 2~3 weeks for the most cases



Coming soon...



## 96 New Reasons to Buy an Echo® Liquid Handler

Introducing the Echo® Qualified 96-well Microplate

A favorite for genomics applications, the Echo® 525 Liquid Handler saves reagents, sample, and time. Transfer of nanoliter volumes with high accuracy and precision enables assay miniaturization while maintaining data quality. Coming soon, Echo Qualified 96-well Microplates will link the unsurpassed performance of the Echo System with upstream sample preparation steps performed in a 96-well format.

- Qualified by Labcyte for reproducible acoustic performance
- High transparency with high contrast well locators for quick sample identification
- Compatible with the Echo 525 Liquid Handler

For more information, visit [www.labcyte.com/echo-525](http://www.labcyte.com/echo-525).

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American Association  
for Cancer Research®

# ANNUAL MEETING 2019 // ATLANTA

March 29-April 3 | Georgia World Congress Center | Atlanta, GA



## Join us in Atlanta for the latest innovative and inspiring cancer research from around the world

**Register Today!**

**Become a Member!** Join the AACR and receive a discount on registration

The AACR Annual Meeting highlights the work of the greatest minds in cancer science and medicine from institutions all over the world. This meeting presents the many scientific discoveries across the breadth of cancer research—from prevention, early detection, and interception; to cancer biology, translational, and clinical studies; to survivorship, population science, and advocacy. This year's program, with the theme of "Integrative Cancer Science • Global Impact • Individualized Patient Care," will be a comprehensive, cutting-edge scientific event that you will not want to miss!

**INTEGRATIVE CANCER SCIENCE  
GLOBAL IMPACT  
INDIVIDUALIZED PATIENT CARE**



#AACR19



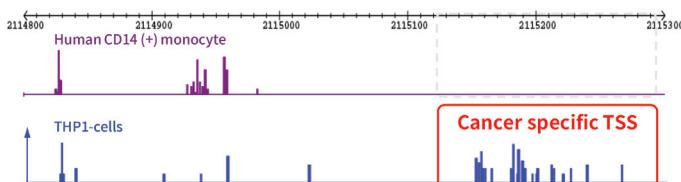
[AACR.org/AnnualMeeting](http://AACR.org/AnnualMeeting)



# Promoter / Enhancer Annotation in the NGS era

**Cap Analysis of Gene Expression (CAGE)** is a new NGS library preparation method using “cap-trapping” technology which enables you to detect and quantify **transcription start site (TSS)** of RNA pol II transcripts including **mRNAs, lincRNAs** and **enhancer RNAs**.

- **Accurate promoter annotation**—reliable estimation of promoter posions and their activities based on precise TSS information
- **Estimation of transcription factor binding sites**—genome-wide motif search around TSS which have different expression profiles among samples
- **Detection of active enhancers**—identify active enhancers by detection of bidirectional enhancer RNAs
- **Development of new biomarkers**—TSS variants are valuable candidate of biomarkers even in the case that there are no difference at the gene expression level
- **Accurate quantification of gene expression**—PCR-free library preparation process without fragmentation allow for more reliable quantification of gene expression than RNA-seq



CAGE expression pattern of a histone H3 methyltransferase gene of human CD14(+) monocytes and THP-1 leukemia monocytic cells.

#### CAGE library preparation & analysis services

Library preparation for Illumina sequencers 500 USD/sample

Sequencing (Illumina HiSeq/ NextSeq) 250 USD/sample

Bioinformatics analysis 250 USD/sample

#### CAGE library preparation kit

8 samples (Cat. 52003-8) 2,000 USD

48 samples (Cat. 52003-48) 10,000 USD

More than 250 papers using CAGE have been published!  
Learn more at [cage-seq.com](http://cage-seq.com)



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#### CRISPR POOLS FOR NGS APPLICATIONS

- Resolve Complex or Repeat-Rich Regions of the Genome
- Assemble Long Contiguous Loci
- Sequencing on Illumina® and PacBio® Systems
- Deplete Highly Abundant Genomic Elements from NGS Libraries