

Protect your precious samples

DNA/RNA Shield™



Preservation of DNA and RNA

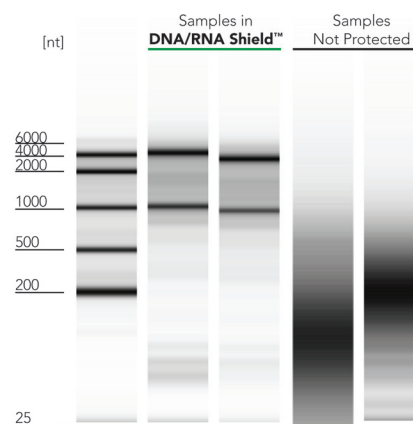
at collection, prior to freezer storage, during freeze/thaw, and at ambient temperature.

Compatible with all downstream applications

Next-Gen Sequencing, RT-PCR, hybridization assays, etc.

Protect any sample type

tissues, cells, blood, and body fluids.



RNA from blood that was freeze-thawed from -80°C to room temperature¹.

DID YOU KNOW?

One of the world's largest repositories of autism brain samples suffered a freezer failure in its tissue bank, losing a third of its samples. Researchers reported at the time that the priceless collection took over 14 years to collect and could set autism research back by a decade².

1. Whole blood samples +/- DNA/RNA Shield™ were subjected to > 2 freeze thaw cycles. Total RNA was subsequently purified using the Quick-RNA™ Whole Blood Miniprep Kit.
2. Weintraub, Karen. (2012, June 11). "Freezer failure at brain bank hampers autism research". *The Boston Globe*.

Try a **free sample** and begin protecting your samples today!
www.zymoresearch.com/dna-rna-shield



Superior mRNA Therapeutics Start **HERE**

TriLink® CleanCap™ technology sets a new standard for superior mRNA translation.

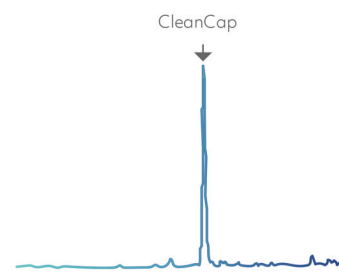
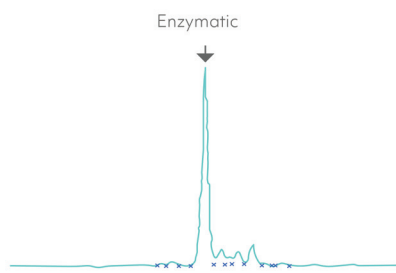
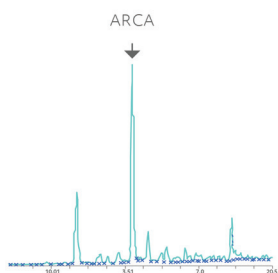
COST: Lowest cost per milligram of biologically active Cap 1 mRNA due to increased yield - **lower than ARCA!**

TIME: Simplified transcription process - "Single pot" reaction to produce a Cap 1 structure

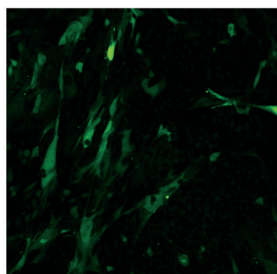
EFFICIENCY: 90-99% capping efficiency. Reduced cellular innate immune response with natural Cap 1 mRNA



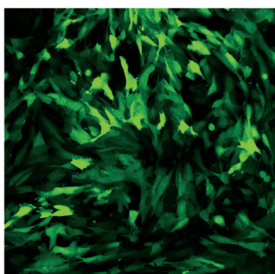
Successful development of mRNA therapeutics relies on reproducible, high-efficiency production of capped mRNA. CleanCap™ uses a new co-transcriptional chemical process for the highest level of mRNA capping:



LC-MS Capping Analysis



ARCA EGFP mRNA



CleanCap™ EGFP mRNA

Available as:

CleanCap™
mRNA -
catalog &
custom



CleanCap™
reagents



CleanCap™
synthesis
services



The comparison is clear.

Visit **CleanCapmRNA.com** to see even more proof.

AACR

American Association
for Cancer Research®

ANNUAL MEETING

2019 \ ATLANTA

CALL FOR ABSTRACTS

ABSTRACT SUBMISSION DEADLINE:

NOVEMBER 15, 2018

AACR.org/AnnualMeeting

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



#AACR19

Introducing

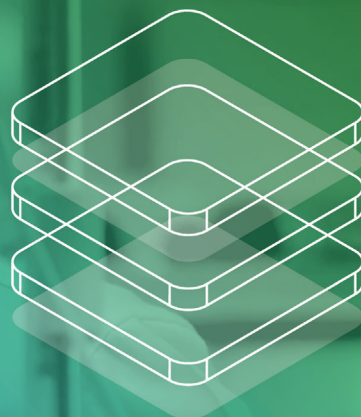


Engineered Cells

SYNTHEGO



**Full Stack
Genome
Engineering**

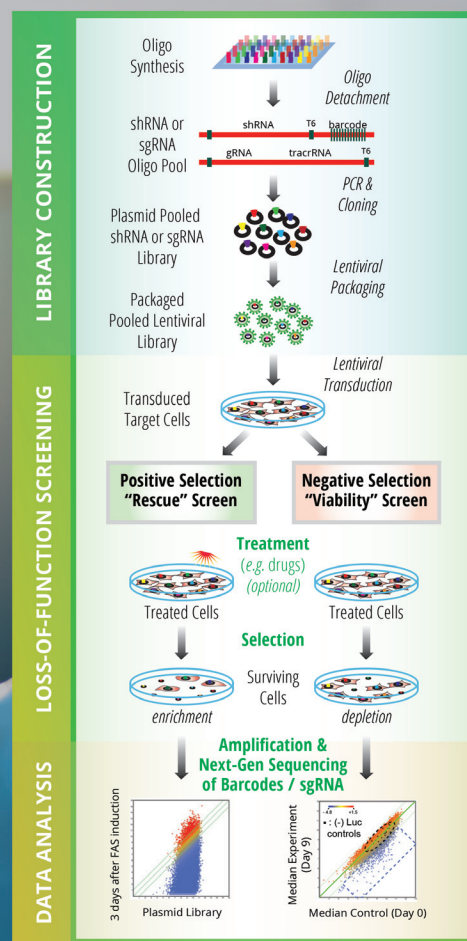


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2019 RNA Meetings at CSHL



aerial view of CSHL sandspit and inner harbor during meeting social

RNA Control & Regulation

84th CSHL Symposium May 29 - June 3, 2019 Poster abstracts due March 8

Terri Grodzicker, David Stewart, Bruce Stillman *Cold Spring Harbor Laboratory*

Topics

RNA-Based Structures

RNA Modifications

Nuclear Localization of RNA

Quality Control & Editing

RNA & Gene Regulation

Cotranscriptional Splicing

Intron / Exon Boundaries

Alternative Polyadenylation

Transposon Control

Small Noncoding RNAs

Long Noncoding RNAs

RNA & Development

Membrane-Less Organelles

Phase Separation

RNA-Based Diseases

Novel RNA functions

meetings.cshl.edu/rnasymp

RNA & Oligonucleotide Therapeutics

March 27 - 30, 2019 Abstracts due January 11

Annemieke Aartsma-Rus, *Leiden University Medical Center* **Masad Damha**, *McGill University*

Matthew Stanton, *Generation Bio* **Laura Sepp-Lorenzino**, *Vertex Pharmaceuticals Inc.*

Topics

Nucleic Acid Chemistry

Delivery

Emerging Therapeutics

Preclinical Development

Clinical Programs

Safety

meetings.cshl.edu/rnatx19

Eukaryotic mRNA Processing

August 20 - 24, 2019 Abstracts due May 31

Alberto Kornblihtt, *University of Buenos Aires, Argentina*

Jens Lykke-Andersen, *University of California, San Diego*

Karla Neugebauer, *Yale University*

Topics

Alternative splicing

Mechanisms of RNA Splicing

RNA-Protein interactions

RNP complexes

3' end processing

RNA modification

RNA structure

Co-transcriptional RNA processing

RNA turnover & quality control

Small RNA biogenesis and function

Viruses and RNA processing

meetings.cshl.edu/mrna19



meeting participants at social



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Genomic Services and access
endless research possibilities.

QIAGEN's Genomic Services offers endless possibilities for you to discover, characterize and profile samples for all your research applications.

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Sample to Insight

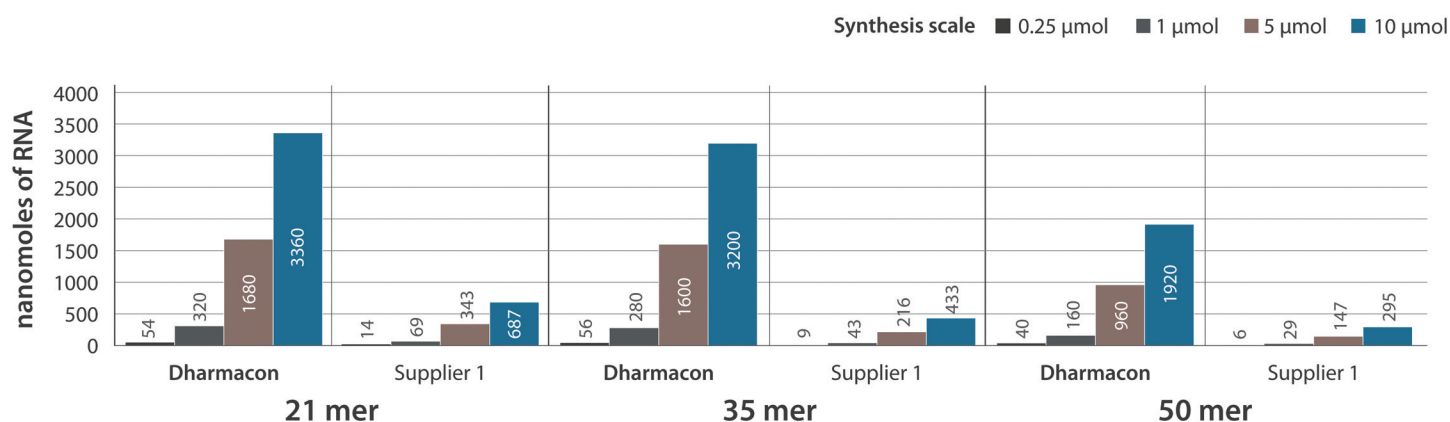


Meet your custom RNA requirements with our nearly limitless synthetic options

If your NMR, crystallography, or RNA binding study requires a non-standard chemical modification or a commercially unavailable modified nucleobase, we can help. For more than 20 years our chemists have utilized Dharmacon™ proprietary 2' ACE chemistry to synthesize RNA with superior yield and quality giving you the flexibility you need.

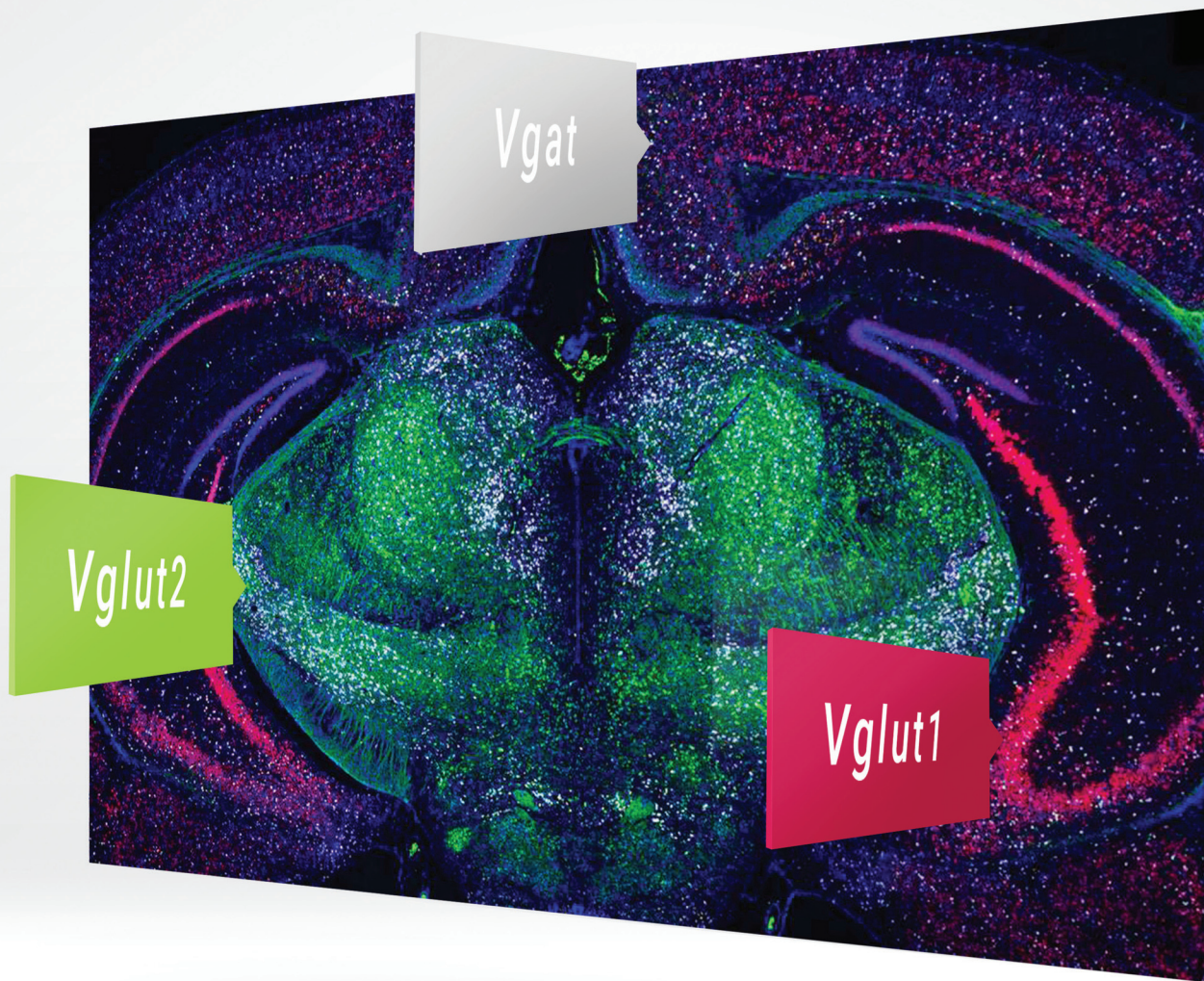
Better RNA yields give you more for your money

RNA yield (HPLC-purified)



The yield for RNA oligos of three different lengths was compared for all available synthesis scales between Dharmacon and a competitor.





Seeing is believing

Spatially map gene expression in tissue at the single-cell level using the RNAscope® *in situ* hybridization technology.

Validation of results

Used in over 1500 publications to validate RNA-seq results and provide information on the cellular localization of RNA species

Co-expression

Co-localization of up to four specific markers at the single-cell level, can also be combined with IHC

Alternative splicing

Information derived from RNA-seq on alternative splicing events can be validated in cells and tissues by BaseScope™ ISH



Visit us at the Bio-Techne Booth during Neuroscience 2018 - San Diego, November 3 - 7

Learn more by visiting : rna.acdbio.com/neuroscience2018



Speak with an RNAscope® expert today acdbio.com/contact

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