

Forefront of Gene Therapy Manufacturing

FROM BENCH TO BEDSIDE



AFFORDABLE

Providing low-cost, high-quality vectors for use in cells, small/large animal models and in the clinic. Scalable proprietary transfection process, providing the benefit of higher cost-effectiveness.



RESEARCH TOOLS

High Titer, High Purity. Rapid turn around times. Additional research tools include AAV Biosensors - GCaMP, RCaMP, CaMPARI, jRGECO1; ORF clones, ZIKA, viral controls.



PRE-CLINICAL/CLINICAL

Providing custom, on-demand virus for pre-clinical and clinical applications. Additional services: Master and Working cell banking, Aseptic filling, QC testing. Compliant with US FDA and EU EMA regulatory requirements.



Feature Viral Vector Application Note.

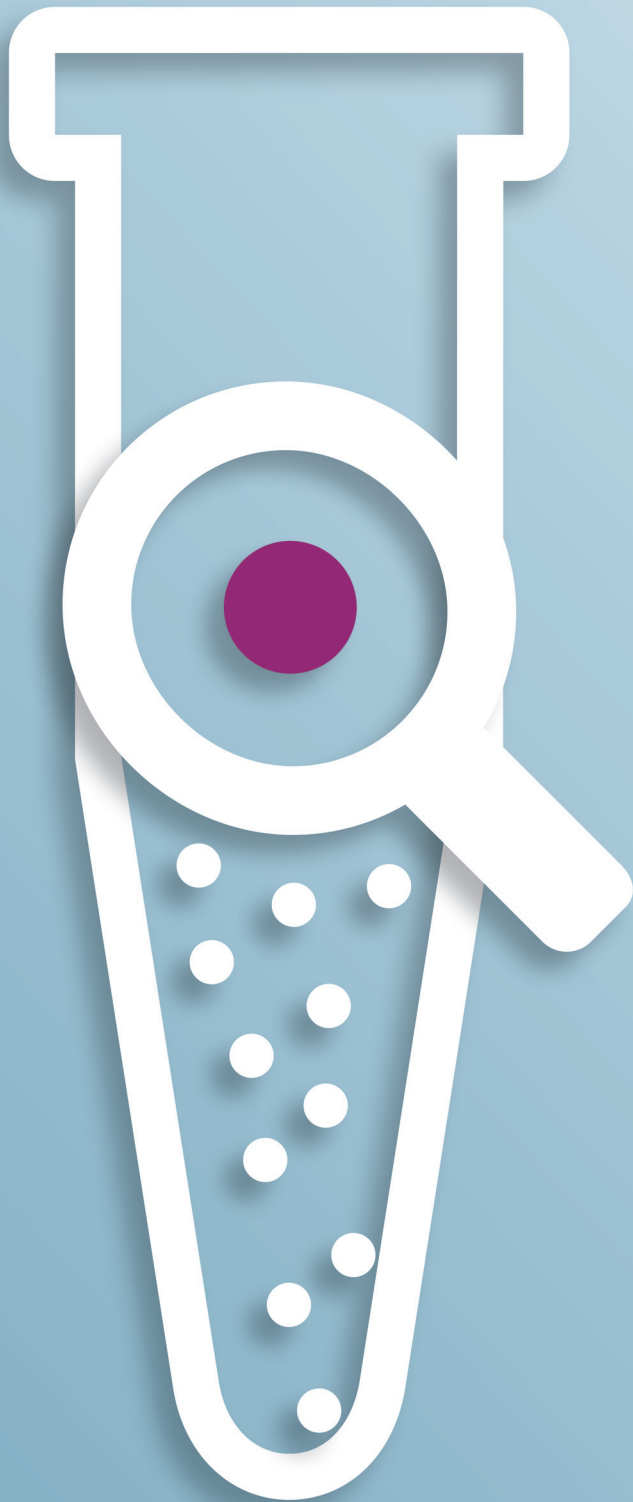
Discover the advantage of Vigene's viral-tools and technologies to help meet your basic, preclinical, and/or clinical application needs. Specializing in **AAV**, **Adenovirus** and **Lentivirus** gene delivery.

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APPLICATION NOTE**

vigenebio.com/virus-manufacturing

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Custom NGS Panels**

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Gene panels on demand, how and when you want them

Ion AmpliSeq On-Demand Panels help you get more from targeted next-generation sequencing

- **Now more selection**—build custom panels from a growing catalog of **over 5,000 pretested genes** most relevant in inherited disease research*
- **Now more sizes**—order the exact quantity you need: 8, 24, 32, and 96 reactions per pack

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for GENOMICS



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Echo® Liquid Handlers enable library preparation in low microliter volumes for a range of sequencing methods. Dramatically reduce reagent costs, conserve samples, and eliminate steps - all while improving library quality.

Echo acoustic liquid handling allows...

- ▶ 100-fold reduction of library prep reaction volumes
- ▶ 30-fold reduction of sample pooling turnaround time
- ▶ Increased sample throughput
- ▶ Automation of workflow to easily prepare thousands of samples
- ▶ Improved accuracy of results

Comparison of Liquid Handling Methods*

	Manual Pipetting	Echo® Liquid Handler
Amount of DNA	50 ng	0.06 - 2.0 ng
DNA volume (Rxn)	25 µL	200 nL
Library prep volume (Rxn)	25 µL	300 nL
Total volume	50 µL	0.5 µL
Reactions per kit	96	9600
Cost per reaction	\$72.91	\$0.73

For more information, visit www.labcyte.com/sequencing.

* Low-Cost, High-Throughput Sequencing of DNA Assemblies Using a Highly Multiplexed Nextera Process. Shapland et al. ACS Synth. Biol., 2015

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Stability

All of our dNTPs are very stable – we guarantee 100% stability for 2 years from the date of purchase.

Features

- Ultra-pure: >99% by HPLC
- Reliable, consistent results
- Available both as ready-to-use mix and a set

Applications

- PCR and qPCR
- cDNA synthesis
- Primer extension
- DNA sequencing
- DNA labeling
- Mutagenesis

Quality control

- Purity assay (HPLC) >99%
- Free of pyrophosphate, DNA and RNA
- DNase, RNase and nickase free
- Tested for PCR, qPCR and RT-PCR



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Associate Editor Position Available

Cold Spring Harbor Laboratory, a world-renowned scientific research facility on Long Island's North Shore, is searching for a scientist interested in the communication of science to fill the position of Associate Editor at *Genome Research*, a journal that publishes advances in genome biology and genomic medicine. *Genome Research* is among the ten most highly cited research journals in biochemistry and molecular biology.

Responsibilities Include:

- Selecting manuscripts
- Negotiating review processes with authors and referees
- Commissioning of reviews and commentaries
- Liaising with the Production Department
- Maintaining awareness of advances in the journal's scientific fields of interest
- Representing the journal at conferences
- Identifying emerging trends in scientific communication

Position Requirements:

The applicant must have a Ph.D. in molecular biology, genetics, or genomics, and preferably with experience in scientific publishing. Strong communication, problem solving and organizational skills, ability to meet deadlines, and the capacity to handle multiple projects at once are significant requirements. An understanding of data reproducibility, deposit, and access issues would be helpful. We seek a team player with excellent interpersonal skills.

Please submit a curriculum vitae and a cover letter explaining your interest in the position.

CSHL Press is affiliated with Cold Spring Harbor Laboratory, located on the North Shore of Long Island, 35 miles from New York City.

Interested candidates should apply via the CSHL Careers website at:

<http://cshl.peopleadmin.com/postings/11826>

Position Number 01046-A

We offer a competitive salary and a comprehensive benefits package.

CSHL is an EO/AA Employer. All qualified applicants will receive consideration for employment and will not be discriminated against on the basis of race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability or protected veteran status.

INAUGURAL AACR INTERNATIONAL MEETING

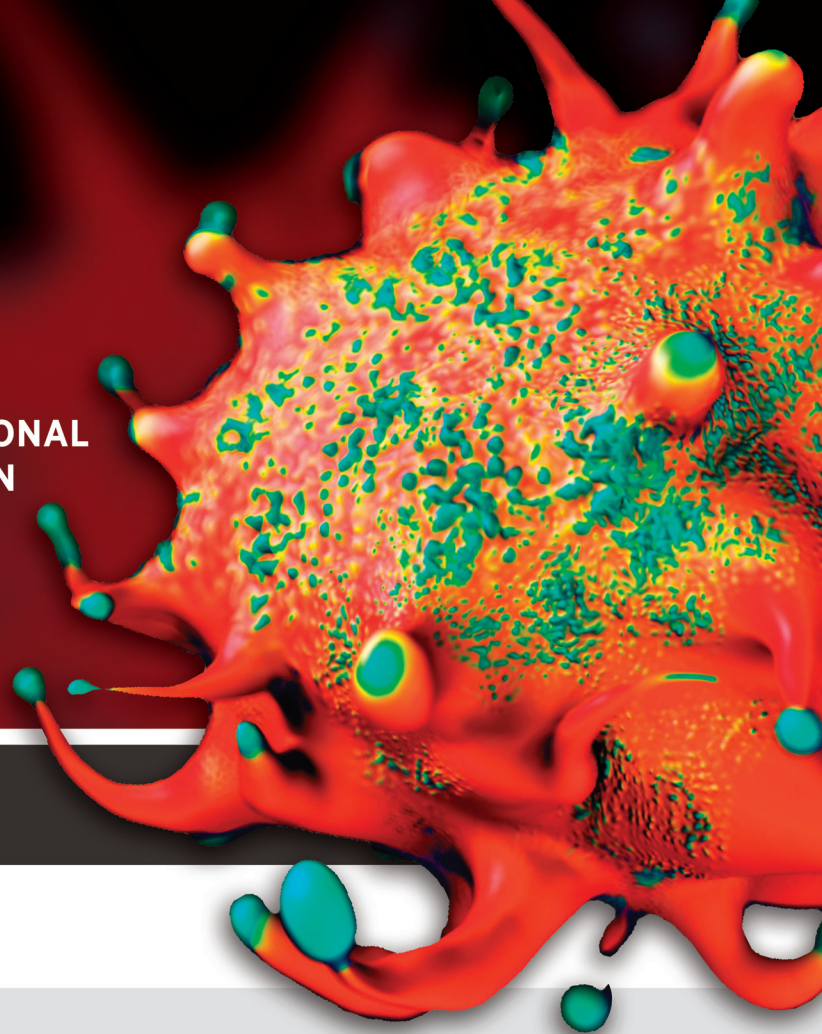
ADVANCES IN MALIGNANT LYMPHOMA:

**MAXIMIZING THE BASIC-TRANSLATIONAL
INTERFACE FOR CLINICAL APPLICATION**

**In Cooperation with the International
Conference on Malignant Lymphoma (ICML)**

June 22-26, 2018

Boston Marriott Copley Place | Boston, MA



Advance Registration Deadline:
Friday, May 11, 2018

SCIENTIFIC COMMITTEE CHAIR



Ari M. Melnick, MD

Gebroe Family Professor of Hematology/Oncology
Departments of Medicine and Pharmacology
Weill Cornell Medical College, New York, NY

ABOUT THIS MEETING

We invite you to register and submit an abstract for the Inaugural AACR International Meeting: Advances in Malignant Lymphoma: Maximizing the Basic-Translational Interface for Clinical Application, which is being held in cooperation with the International Conference on Malignant Lymphoma (ICML).

This must-attend program will provide a unique forum for interactive discussion and brainstorming among basic scientists, translational researchers, clinical investigators, hematologists, radiotherapists, pediatric oncologists,

pathologists; and computational and systems biologists, and patient-advocates about how recent advances and emerging areas of lymphoma research hold enormous potential for transforming clinical care.

The AACR is the first and largest professional organization in the world dedicated to conquering all cancers, both solid tumors and blood cancers, and this inaugural lymphoma meeting serves as the launching point for an increased focus on lymphoma and related lymphoid malignancy programs presented by the AACR.

 Continuing Medical Education (CME) Activity—AMA PRA Category 1 Credits™

Learn more and register at
AACR.org/Lymphoma18

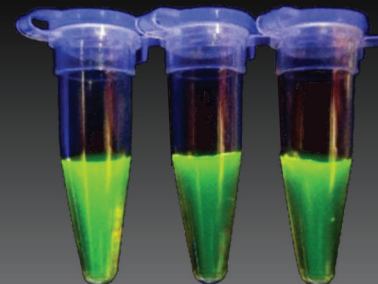
#AACRLYMP18

AACR American Association
for Cancer Research®

FINDING CURES TOGETHER®

Eprobe® / Eprimer™

Novel fluorescent probe for SNP genotyping / somatic mutation detection



Eprobe is a DNA-based probe which emits fluorescence when specifically binding to a complementary strand (Fig.1). Thiazole orange, one of the available fluorophores used by Eprobe also increases melting temperature (T_m) of the probe by approx. 10°C . Fluorescence emitted by Eprobe can be detected using a filter for SYBR® Green I.

*SYBR is a registered trademark of Molecular Probes, Inc.

High resolution SNP detection with a single probe

Melting curve analysis after asymmetric PCR can detect genotype as the Eprobe detaches from mismatched alleles at low temperatures. Increased T_m of the Eprobe enables a shorter probe design and a clearer distinction of single nucleotide substitution.

Pre-designed Eprobes targeting SNP for ADH1B (rs1229984), ADRB2 (rs1042713), ALDH2 (rs671), FTO (rs9939609), UCP1 (rs1800592) and others are available.

Simple, specific and highly sensitive somatic mutation detection

When Eprobe, which shares a binding site with a primer, is added to the PCR mix, amplification from the wild type (WT) template is blocked (PCR clamping), and as a result, efficient amplification from mutant type templates as well as highly sensitive detection of somatic mutations can be achieved. Increased T_m of Eprobe enables highly sensitive mutant allele detection by suppression of PCR amplification of WT alleles.

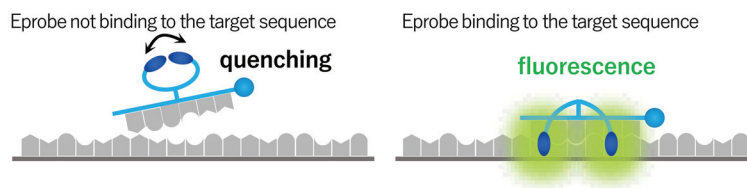


Figure 1. Fluorescence emission mechanism of Eprobe

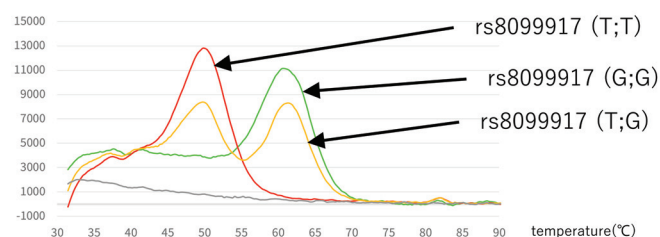


Figure 2. Pre-designed Eprobe for IL28B (rs8099917).

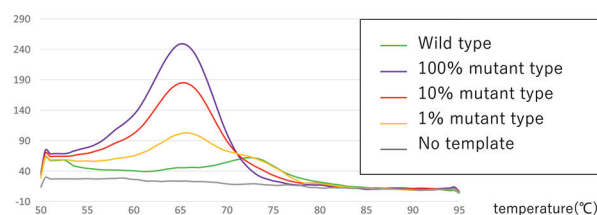




Figure 3. Pre-designed Eprobe for G12D in the KRAS gene.

Pricing and ordering information

Product	Fluorophore	Quantity	List price
Eprobe	Thiazole Orange	1.5 nmol	¥19,000 ¥38,000
		3.0 nmol	¥30,000 ¥60,000
		5.0 nmol	¥45,000 ¥90,000
		10.0 nmol	¥70,000 ¥140,000
		Modification: 3' Spacer C3.	1.5 nmol
	Thiazole Pink	3.0 nmol	¥70,000
		5.0 nmol	¥110,000
		10.0 nmol	¥170,000

- Excitation/Emission wave length (nm): Thiazole Orange: 510/530, Thiazole Pink: 570/590.
- Purification: HPLC, Shipping format: dry.
- Shipping charge: 11,000 JPY / shipment.

Product	Fluorophore	Quantity	List price
Eprimer	Thiazole Orange	1.5 nmol	¥19,000 ¥38,000
		3.0 nmol	¥30,000 ¥60,000
		5.0 nmol	¥45,000 ¥90,000
		10.0 nmol	¥70,000 ¥140,000
		3' unmodified: Extension from the 3' end is possible.	1.5 nmol
	Thiazole Pink	3.0 nmol	¥70,000
		5.0 nmol	¥110,000
		10.0 nmol	¥170,000

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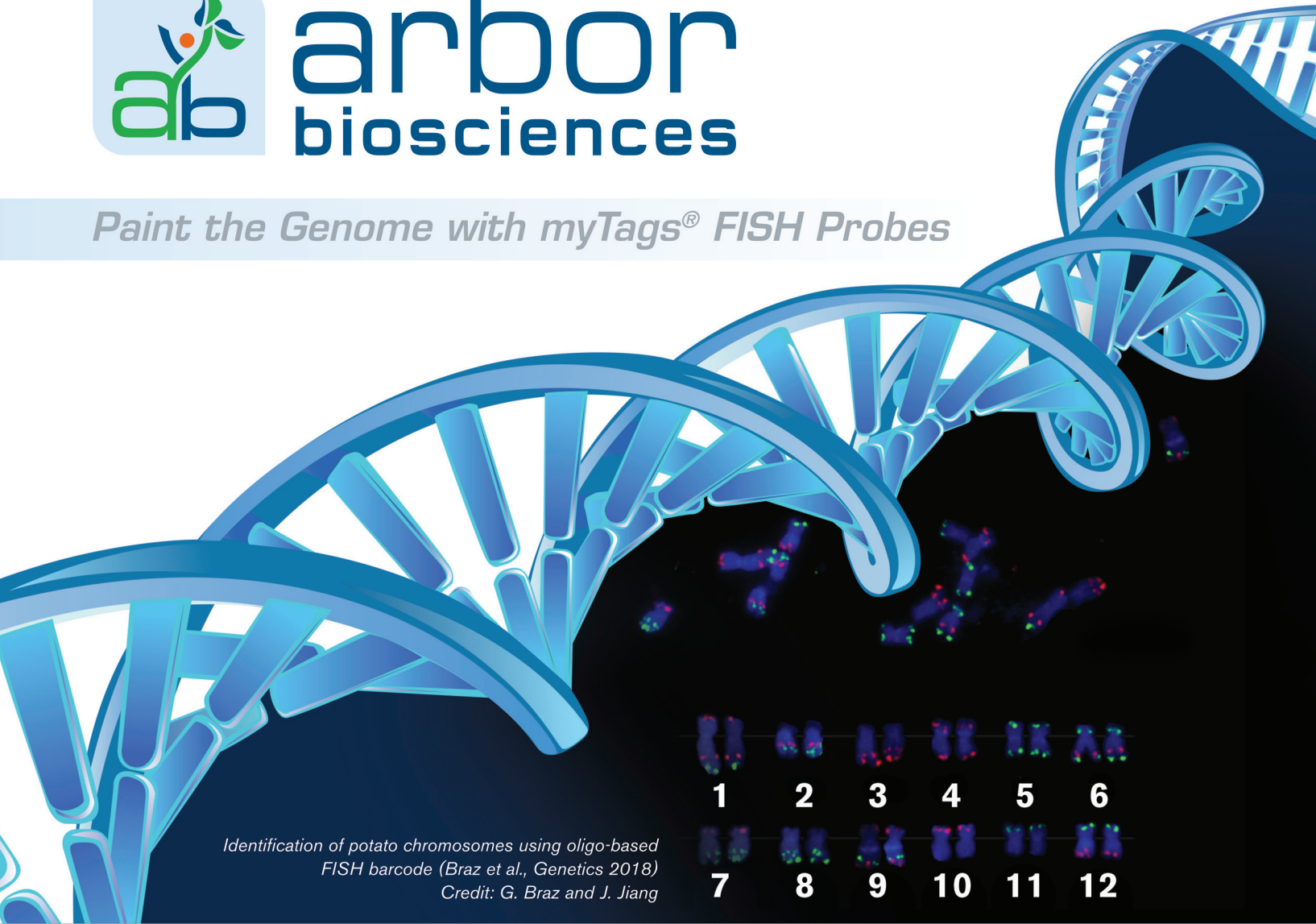
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https://www.dnaform.jp/en/products/fluorecent_oligonucleotide/eprobe_eprimer/



arbor biosciences

Paint the Genome with myTags® FISH Probes



*Identification of potato chromosomes using oligo-based
FISH barcode (Braz et al., Genetics 2018)
Credit: G. Braz and J. Jiang*

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7 8 9 10 11 12



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