



## Your Partner for CUREs

**C**ourse-based **U**ndergraduate **R**esearch **E**xperiences

**More than a course.** CUREs allow students to learn and apply various techniques in a particularly relevant context. Even more so, CUREs can increase and retain science degree enrollment, generate broadly relevant publishable results, as well as pilot and advance faculty research! CUREs answer AAAS and NSF's *Vision and Change in Undergraduate Biology Education*'s call for more student research participation.

**We're passionate about research and education.** As a research manufacturing company, Bio-Rad uniquely brings the same innovative tools used in research labs to classrooms at a discount. We know research, education, how to achieve reliable, repeatable results and have award-winning technical support as your partner.

**More for every course.** Single- and multi-session kits and linked series modules introduce scientific methods and practices. Reagents, disposables, and instruments — and software *free* to all students — ease and accelerate achieving CURE goals: learning, discovery, and communicating results.

**We're dedicated to helping you and your students achieve the very best — while **saving time and money.****

# Laboratory Methods Alignment Guides

## We have what you need to introduce scientific research...

From robust and relevant skills-based kits to inquiry-based kits allowing your students to ask open-ended questions within a manageable framework for the classroom lab to multi-session modular series that provide a CURE-like experience, we provide flexible scaffolding for you to achieve your teaching goals.

	Description	Catalog No.	Micro and Cell Biology			Nucleic Acid and Molecular Biology						Protein Expression, Purification, and Analysis								
			Culturing	Visualization and Counting	Antagonist Sensitivity	Extraction and Purification	PCR and RT-PCR	Electroporation	Restriction Digests	Ligation and Transformation	Analysis	Sequencing and Bioinformatics	Expression	Isolation	Chromatography	Quantification	SDS-PAGE	Western Blotting	ELISA	Activity and Kinetics
<b>Book</b>	<i>Biotechnology: A Laboratory Skills Course</i> textbook, second edition	12008528EDU	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Series</b>	Cloning and Sequencing Explorer Series	1665000EDU	✓	✓	✓	✓	✓	✓	✓	✓	✓									
	Protein Expression and Purification Series — Centrifugation Purification Process	1665040EDU	✓		✓							✓	✓	✓	✓	✓				✓
	Protein Expression and Purification Series — Hand-packed Purification Process	1665045EDU	✓		✓							✓	✓	✓	✓	✓				✓
	Protein Expression and Purification Series — Prepacked Purification Process	1665050EDU	✓		✓							✓	✓	✓	✓	✓				✓
<b>Bio-Rad Explorer Kits</b>	PV92 PCR Informatics Kit	1662100EDU				✓	✓	✓			✓	✓								
	Fish DNA Barcoding Kit	1665100EDU				✓	✓	✓			✓									
	DNA Barcoding Sequencing Module	1665115EDU									✓									
	GMO Investigator Kit	1662500EDU				✓	✓	✓			✓									
	GMO Investigator Real-Time PCR Starter Kit	1662560EDU				✓	✓	✓			✓									
	Crime Scene Investigator PCR Basics Kit	1662600EDU					✓	✓			✓									
	Crime Scene Investigator Real-Time PCR Starter Kit	1662660EDU					✓	✓			✓									
	Forensic DNA Fingerprinting Kit	1660007EDU						✓	✓		✓									
	Restriction Digestion and Analysis of Lambda DNA Kit	1660002EDU						✓	✓		✓									
	Analysis of Precut Lambda DNA Kit	1660001EDU						✓			✓									
	pGLO Bacterial Transformation Kit	1660003EDU	✓	✓	✓						✓									✓
	pGLO Transformation and Inquiry Kit for AP Biology	1660335EDU	✓	✓	✓						✓									✓
	pGLO Kit SDS-PAGE Extension	1660013EDU															✓			✓
	Green Fluorescent Protein Chromatography Kit	1660005EDU	✓		✓							✓	✓	✓	✓					✓
	Secrets of the Rainforest Kit	1660006EDU	✓	✓	✓							✓	✓	✓	✓					✓
	Comparative Proteomics Kit I: Protein Profiler	1662700EDU											✓		✓	✓				
	Comparative Proteomics Kit II: Western Blot Module	1662800EDU											✓		✓	✓	✓			
	Rapid Blotting — V3 Western Workflow Starter Kit	1662875EDU													✓	✓	✓	✓		
	Size Exclusion Chromatography Kit	1660008EDU												✓	✓					
	Got Protein? Kit	1662900EDU													✓					
	Biofuel Enzyme Kit	1665035EDU											✓		✓					✓
	Biofuel Enzyme Reactions Kit for AP Biology	17001235EDU											✓		✓					✓
ELISA Immuno Explorer Kit	1662400EDU													✓					✓	
Giant Panda Problem Kit for AP Biology	17002878EDU													✓					✓	
<i>C. elegans</i> Behavior Kit	1665120EDU	✓	✓	✓																
Microbes and Health Kit	1665030EDU	✓	✓	✓																

## ...and achieve your CURE goals

From research grade instruments and equipment to reagents and consumables we have the tools you need to support your CURE goals.

### Instruments and Equipment

Easy to learn, easy to use, reliable and discounted for undergraduate teaching labs and research courses. Advance your students' research: our instruments and equipment — and software *free* to all students — ease and accelerate achieving learning, discovery, and communicating results.

Description	Catalog No.	Micro and Cell Biology		Nucleic Acid and Molecular Biology							Protein Expression, Purification, and Analysis							
		Culturing	Visualization and Counting	Antagonist Sensitivity	Extraction and Purification	PCR and RT-PCR	Electrophoresis	Restriction Digests	Ligation and Transformation	Analysis	Sequencing and Bioinformatics	Expression	Isolation	Chromatography	Quantification	SDS-PAGE	Western Blotting	ELISA
T100 Thermal Cycler	1861096EDU					✓		✓										
C1000 Touch Thermal Cycler with Dual 48/48 Fast Reaction Module	1851148EDU					✓		✓										
CFX96 Touch Real-Time PCR Detection System with Starter Package	1855196EDU					✓		✓	✓									
Mini-Sub Cell GT Cell — includes tank, lid, cables, tray, combs, and caster	1664288EDU						✓		✓									
Mini-PROTEAN Tetra Cell for Ready Gel Precast Gels, 2-gel system	1658005EDU														✓	✓		
Trans-Blot Turbo Transfer System Rapid Blotting	1704150EDU															✓		
PowerPac Basic Power Supply	1645050EDU						✓								✓	✓		
iMark Microplate Absorbance Reader with Microplate Manager Software	1681135EDU												✓					✓
ZOE Fluorescent Cell Imager	1450031EDU		✓															
TC20 Cell Counter with Printer	1450103EDU		✓															

### Laboratory Packages

Complete equipment packages are available to run all of Bio-Rad's Explorer Laboratory Kits and popular CURE protocols. These research-quality laboratory equipment sets are perfect for undergraduate teaching labs and research courses.

Starting a new lab or CURE? Get started with our New Lab and New Grant Program at [bio-rad.com/NewCURELab](http://bio-rad.com/NewCURELab) or call 1-800-4-BIORAD.

View pre-designed education lab packages at [bio-rad.com/CURELabPackages](http://bio-rad.com/CURELabPackages), or call our award-winning technical support specialists at 1-800-4-BIORAD to design custom packages.



### Reagents and Consumables

We have a full range of research grade reagents and consumables to support your undergraduate research course needs (don't forget — all at a discount just for educators).

See our full range of products at [explorer.bio-rad.com](http://explorer.bio-rad.com) or call our award-winning technical support specialists at 1-800-4-BIORAD for help selecting items for your CURE.

#### Nucleic Acid Preparation and PCR

- Genomic DNA Isolation
- RNA Isolation
- Plasmid Miniprep
- PCR Kleen Spin Purification
- PCR Master Mixes
- RT-PCR Polymerase, dNTPs, and Dyes
- PCR Tubes, Strips, and Plates

#### DNA Electrophoresis

- Reagent Packs
- Agarose Gel Drying Film and Agarose Powders
- Electrophoresis Buffers
- Precast Agarose Gels
- Size Standards
- Stains and UVView Loading Dye

#### Protein Purification and Analysis

- Precast and Stain-Free Gels
- Gel Stains
- Visual, UV, Fluorescence, and Western Blot Standards
- Electrophoresis Buffers
- Blotting Membranes and Buffers

#### General Laboratory Equipment

- Centrifuges
- Tube Rollers
- Vortexers
- Rockers
- Dry and Water Baths
- Incubation Ovens
- Shaking Incubators
- Micropipets and Pipet Tips

# The right products for CUREs and undergraduate research

Set students up for success with their CURE and future research: our innovative tools, discounted for CURE and teaching labs, are the same ones they'll use in research labs. Plus, our award-winning technical support specialists' expertise is an invaluable resource for you and your students.

These are a sampling of products applicable to popular national CUREs. See our full range of products at [explorer.bio-rad.com](http://explorer.bio-rad.com) or call our technical support specialists at 1-800-4-BIORAD for help selecting items for your CURE.

		Example CUREs			
		Tiny Earth	Small World Initiative	SEA-PHAGES	CCURI DNA Barcoding
Description		Catalog No.			
Concept Development	<i>Biotechnology: A Laboratory Skills Course</i> textbook, second edition	12008528EDU	✓	✓	✓
	Laboratory Notebook, classroom set of 32	1661053EDU	✓	✓	✓
	pGLO Bacterial Transformation and Inquiry Kit	1660335EDU	✓	✓	
	Forensic DNA Fingerprinting Kit	1660007EDU			✓
	Restriction Digestion and Analysis of Lambda DNA Kit	1660002EDU			✓
Essential Equipment and Instruments	Fish DNA Barcoding Kit	1665100EDU	✓	✓	✓
	DNA Barcoding Sequencing Module	1665115EDU	✓	✓	✓
	Mini Incubation Oven	1660501EDU	✓	✓	✓
	Benchtop Shaking Incubator Expanded Set	17002945EDU	✓	✓	✓
	Tube Racks, 60 x 15 ml tube	1660483EDU	✓	✓	✓
	Temperature-Controlled Water Bath	1660504EDU	✓	✓	✓
	Digital Dry Bath with 1.5 ml heating block	1660562EDU			✓
	Model 16K Microcentrifuge	1660602EDU	✓	✓	✓
	Model 16K Microcentrifuge PCR tube Adaptor	1660620EDU	✓	✓	✓
	BR-2000 Vortexer	1660610EDU	✓	✓	✓
	T100 Thermal Cycler	1861096EDU	✓	✓	✓
	C1000Touch Thermal Cycler with Dual 48/48 Fast Reaction Module	1851148EDU	✓	✓	✓
	DNA Electrophoresis Upgraded Expanded Lab Set — includes two power supplies, eight Mini-Sub cell GT systems, ten professional adjustable-volume micropipets (pipet tips are available), a dry bath, and tube racks	17004207EDU	✓	✓	✓
	DNA Electrophoresis Instructional Lab Set 2 — includes power supply, four Mini-Sub cell GT systems with trays and combs, and eight professional 2–20 µl adjustable-volume micropipets (pipet tips are available)	1660706EDU	✓	✓	✓
	Gel Doc EZ Imaging System	1708270EDU	✓	✓	✓
Reagents and Consumables	Petri dishes	1660470EDU	✓	✓	✓
	Inoculation loops	1660471EDU	✓	✓	✓
	Cell culture tubes, 17 x 100, 14 ml	1660476EDU	✓	✓	✓
	<i>Microcentrifuge, conical, cryo, and additional tubes are available</i>				
	LB Nutrient Agar Powder, 500 g	1660472EDU	✓	✓	✓
	<i>Additional solid and liquid growth media are available</i>				
	DNA Barcoding Extraction Reagent Refill Pack	1665105EDU	✓	✓	✓
	InstaGene Matrix for PCR-ready DNA purification	7326030EDU	✓	✓	✓
	0.2 ml PCR Tubes with Domed Caps	TWI0201EDU	✓	✓	✓
	0.2 ml 8-Tube Strips without Caps	TBS0201EDU	✓	✓	✓
	Domed 8-Cap Strips	TCS0801EDU	✓	✓	✓
	iProof HF Master Mix — up to 4X faster than Taq polymerase	1725310EDU	✓	✓	✓
Master Mix For PCR	1665009EDU	✓	✓	✓	
PCR Kleen Spin Purification Module	7326300EDU	✓	✓	✓	
Large Fast Blast DNA Electrophoresis Reagent Pack — makes 360–1,080 agarose mini gels and includes agarose powder, Fast Blast DNA Stain, and TAE buffer	1660460EDU	✓	✓	✓	
UView 6x Loading Dye, 1 ml	1665112EDU	✓	✓	✓	
DNA Electrophoresis Sample Loading Dye	1660401EDU	✓	✓	✓	
EZ Load 1 kb Molecular Ruler	1708355EDU			✓	
EZ Load 100 bp PCR Molecular Ruler	1708353EDU	✓	✓	✓	

Additional equipment, custom bundles, and PCR supplies are available — call 1-800-4-BIORAD to get started.



**Bio-Rad  
Laboratories, Inc.**

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