$755 Off Thermal Cycler (see page 3) • **New** STEM Electrophoresis Kit (see page 5)
Free PowerPac™ Basic and Tetra™ Cell System With Kit Combo (see page 16)

Bio-technology Explorer™

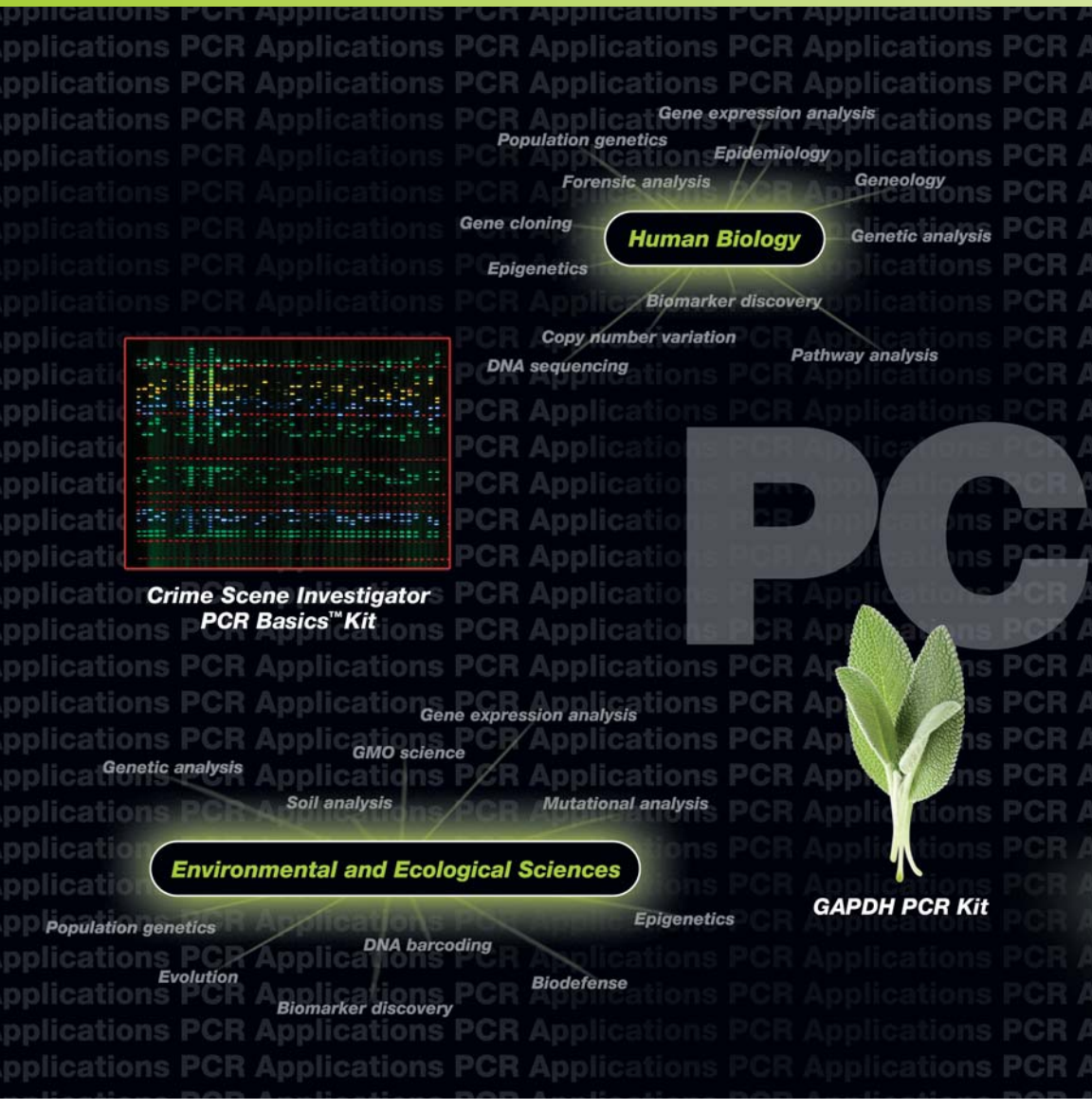
CAPTIVATING SCIENCE EDUCATION

Bring **STEM** to Life

BIO-RAD

CURRICULA • EQUIPMENT • KITS • PROFESSIONAL DEVELOPMENT • TECHNICAL SUPPORT

Polymerase Chain Reaction:



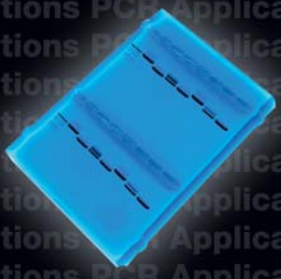
PCR — the Microscope of Modern Biology. Few techniques have revolutionized life science research more than the polymerase chain reaction (PCR). In the 17th century, the microscope provided a view into microorganisms and cell structure that accelerated our understanding of disease and biological systems. In modern biology, PCR has become an essential tool for understanding evolutionary relatedness, disease outbreaks, genetic identity, food quality — any biological application.

PCR is no longer just "the PCR lab" that is done once a year. It is a fundamental technique for understanding biological systems, from DNA to ecosystems. For students developing 21st century skills, PCR is a gateway to limitless areas of study!

And now, PCR has never been more accessible — get your state of the art thermal cycler today for less than $3,000 and open the door to a future career in bioscience for your students.

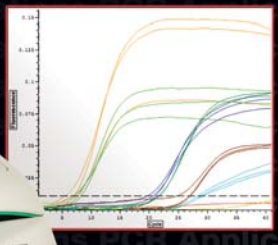
Inquiry and **STEM**. The thermal cycler is a great example of how engineering is used to design tools to answer research questions. In PCR, minute samples of DNA are heated and cooled repeatedly. In the beginning, this was accomplished by moving samples between water baths set at different temperatures — a very labor intensive process. How do you design an instrument that makes the process simple, efficient, and cost-effective? As a starting point

The Essential Tool for Modern Biology



PV92 PCR Informatics Kit

Breed determination
Epigenetics
Biomarker discovery
GMO science
Food safety
DNA barcoding
Evolution
Plant and Animal Sciences
Food source authentication
Veterinary medicine
Genetic analysis
Mutational analysis
Copy number variation
Soil analysis



GMO Investigator Real-Time PCR Starter Kit

Crime Scene Investigator PCR Basics Real-Time Starter Kit

GMO Investigator Kit

T100™ Thermal Cycler
Special Offer — Save $755

T100 Thermal Cycler has a 96-well x 2.0 ml sample capacity with rapid heating and cooling technology. This classroom-scale thermal cycler provides high sample throughput in less time. It offers a large 5.7“ VGA color touch screen, intuitive programming, and real-time graphical display of your PCR protocol at an economical price.

Specifications

Speed of ramping	Up to 4°C/sec
Temperature range	4–100°C
Reaction volumes	1–100 µl
Gradient capability	Included
Ports	1 USB A flash drive expansion
Memory	500 typical programs onboard
Dimensions	26 x 47 x 23 cm (10 x 18 x 9 in) (W x D x H)

T100 Thermal Cycler

Catalog # ..... *EDU Price*

186-1096EDU ..... ~~$3,750.00~~

Special Promotional Offer **2,995.00**

Must reference quote #12-Q32766.

Limit one per customer. Offer cannot be combined with other promotional offers. Promotional offer expires December 31, 2012.

for students to integrate technology, engineering, and math into biology, Bio-Rad has introduced a new IDEA — Inquiry Dye Electrophoresis Activity kit and a STEM Electrophoresis kit (p. 4–5). Aligned with the *Framework for K–12 Science Education*, these activities provide an integrated, hands-on experience encompassing all elements of inquiry and STEM. Engage your students in the process of not only doing science, but developing tools to answer questions about the world around them.

As one of our student testers said after completing the IDEA and STEM activities — **“I feel all sciency”**! Inspire the inner scientist in your students.

New **IDEA** and **STEM Electrophoresis Kits**

Integrate Science, Technology, Engineering, and Math Skills into

IDEA Starter Pack *Special Offer*

IDEA Kit Starter Pack

Please see p. 5 for product description.

Catalog # . . . . . EDU Price

166-5077EDU . . . . . ~~$180.00~~

Special Promotional Offer **162.00**

Must reference quote #12-Q26419.

Limit one per customer. Offer cannot be combined with other promotional offers. Promotional offer expires December 31, 2012.

STEM Starter Pack *Special Offer*

STEM Electrophoresis Kit Starter Pack Special Offer

Please see p. 5 for product description.

Catalog # . . . . . EDU Price

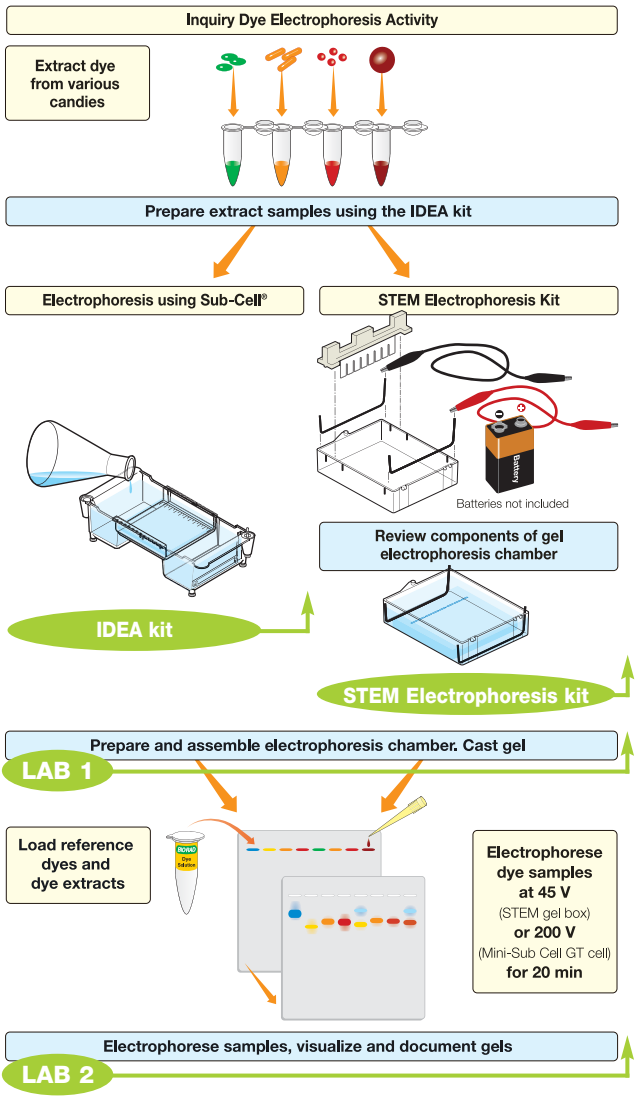
166-5095EDU . . . . . ~~$425.00~~

Special Promotional Offer **382.50**

Must reference quote #12-Q26419.

Limit one per customer. Offer cannot be combined with other promotional offers. Promotional offer expires December 31, 2012.

Educational discounts apply only to items ordered with an EDU suffix. EDU price discounts are for qualified educational institutions and educators only.



New **IDEA Kit — Inquiry Dye Electrophoresis Activity.** Electrophoresis is a fundamental skill used daily in the molecular biology laboratory. Bridge the gap between textbook science and students' lives by using dyes extracted from candy coatings to perform agarose gel electrophoresis. Bio-Rad's new IDEA kit is a dazzling way for students to learn the basics of this key technique using dyes that are commonly found in the foods they eat. Combine this with the power of inquiry to encourage your students to ask questions and seek answers. What dye combinations create the colors in the hard-shell candies of their choice? Do red and blue make purple? Is pink really pink? The colorful results may surprise you and will certainly get your students talking about their discoveries.

New **STEM Electrophoresis Kit.** Engineer the tools for biological discovery. What actually happens in an agarose gel electrophoresis chamber? Reveal the secrets of this "black box" with Bio-Rad's new STEM Electrophoresis Kit. Give your students the opportunity to learn about critical design aspects of an electrophoresis unit by engineering one! This activity addresses the fundamentals of STEM with an integrated hands-on approach. This gel electrophoresis unit is designed to run the IDEA kit, which will bring engagement and an additional inquiry component into your classroom.

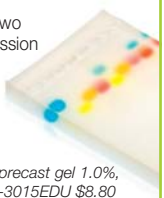
New 2012 **Catalog!** *(see page 11)*

New IDEA Kit and STEM Electroporesis Kit

IDEA kit

*Representative **STEM Electrophoresis Engineering Module** includes 2 gel chambers, 2 combs, 4 electrodes, and 4 electrical leads. Visit us at explorer.bio-rad.com for more information.*

Each kit features
- Inquiry lab
- Complete in two 45 min lab session
- Visible results



ReadyAgarose™ precast gel 1.0%, 8-well, TAE, 161-3015EDU $8.80

IDEA Kit — Inquiry Dye Electrophoresis Activity

Catalog #	List Price	EDU Price
166-5075EDU	**$67.50**	**$54.00**

Includes 4 reference dyes, dye extraction solution, TAE, agarose, microcentrifuge tubes, and curriculum instruction manual.

IDEA Kit Reagent Refill Pack

Catalog #	List Price	EDU Price
166-5076EDU	**$32.50**	**$26.00**

Includes 4 reference dyes, dye extraction solution, and microcentrifuge tubes.

IDEA Kit Starter Pack — *See Special Offer on p. 4*

Catalog #	List Price	EDU Price
166-5077EDU	**$225.00**	**$180.00**

Includes one IDEA kit (166-5075EDU), eight 10 µl fixed-volume pipets, and 1 bag of BR-35 tips (1,000 tips).

STEM Electrophoresis Teacher Demonstration kit

Catalog #	List Price	EDU Price
166-5080EDU	**$123.75**	**$99.00**

Includes one IDEA kit reagent refill pack (166-5076EDU), TAE, agarose, enough materials (gel chambers, combs, electrodes, electrical leads) to build 2 complete gel electrophoresis chambers, and STEM curriculum instruction manual. Download free IDEA kit manual online. Batteries not included.

STEM Electrophoresis Classroom Kit

Catalog #	List Price	EDU Price
166-5090EDU	**$331.25**	**$265.00**

Includes one IDEA kit reagent refill pack (166-5076EDU), TAE, agarose, enough materials (gel chambers, combs, electrodes, electrical leads) to build 8 complete gel electrophoresis chambers, and STEM curriculum instruction manual. Download free IDEA kit manual online. Batteries not included.

STEM Electrophoresis Kit Starter Pack — *See Special Offer on p. 4*

Catalog #	List Price	EDU Price
166-5095EDU	**$531.25**	**$425.00**

Includes one STEM Electrophoresis Classroom kit (166-5090EDU), one IDEA kit reagent refill pack (166-5076EDU), TAE, agarose, enough materials (gel chambers, combs, electrodes, electrical leads) to build 8 complete gel electrophoresis chambers, eight 10 µl fixed-volume pipets, 1 bag of BR-35 tips (1,000 tips), and STEM curriculum instruction manual. Download free IDEA kit manual online. Batteries not included.

*Win a **Free STEM Starter Pack***

If you get the Green Ticket, you'll win one of five free STEM Electrophoresis Kit Starter Packs! Tell us your STEM story and enter to win a free STEM Electrophoresis Starter Pack (catalog #166-5095EDU, retail price $531.25)!

Sign up at www.surveymonkey.com/s/FindTheGreenTicket. If you have the winning ticket, you will win one STEM Electrophoresis Kit Starter Pack!

No purchase Necessary. Purchasing does not improve your chances of winning. Sweepstakes is open to legal residents of the United States and the District of Columbia (excluding Rhode Island) who are at least 18 years of age at the time of registration. Download official rules http://www.surveymonkey.com/s/FindTheGreenTicket. Sweepstakes begins 8/27/2012 (12:01 AM PST) and closes 12/31/2012 (11:59 AM PST). Odds of winning are 1 in 40 (based on all 200 game pieces being distributed). Void in all U.S. territories and possessions and where prohibited. To enter without completing the survey, please send a self-addressed, stamped envelope to: Bio-Rad Laboratories, Inc., Attn: BioEducation MS 6-285 Find the Green Ticket Sweepstakes, 6000 James Watson Dr., Hercules, CA 94547. The mail-in entry form must be postmarked by 12/31/2012 and received by Sponsor by 1/10/13 to be eligible to enter or win. Sweepstakes is sponsored by Bio-Rad Laboratories, Inc., 1000 Alfred Nobel Drive, Hercules, CA 94547.

STEM Electrophoresis Kit Activities

Science
Biology: Electrophoresis, food science, nutrition, allergies, colored molecules
Chemistry: Oxidation/reduction, chemistry of food dyes, buffers, solubility, pH, transition metal reactivity
Physics: Electricity, resistance, resistivity, closed circuits, batteries in series

Technology
Separation technology of molecules, pipetting and liquid handling
Electrophoresis chamber
Biotechnology

Engineering
Circuit development
Design parameters
Safety
Materials science
Testing models

Math
Measuring volumes, distances, proportions, pH, temperature, R_f, voltage, current
Calculating velocity, volume, area, concentrations, resistance
Analyzing results

New Biotechnology: A Laboratory Skills Course Textbook

Starting a biotechnology course has never been easier! *Biotechnology: A Laboratory Skills Course* is a biotechnology textbook that is a ready-to-go solution for your biotechnology course, allowing you to complement your course or start a new one right away! This laboratory textbook provides you and your students with background information about the methods and techniques used in today's exciting research and manufacturing laboratory environments, along with real-world activities that allow your students to understand the powerful impact science has on their everyday lives.

Coming soon — PowerPoint slides and technique videos!

35 activities — non–kit-based and kit-based: Activities are an essential part of engaging students to develop their skills and provide the backbone for this textbook. The non–kit-based activities, such as pipetting and solution making, address core competencies needed in all areas of a molecular biology laboratory. The kit-based activities extend these skills into real-world applications with worry-free preparation and confidence in the results.

Each student chapter includes: an introduction and background on fundamental molecular biology concepts; real-world vignettes of careers, bioethics, key skills, and case studies; and hands-on activities that progressively build science proficiency.

The teacher supplement provides step-by-step activity preparation, including information about the activity timeline, a skills assessment, answers to pre- and postlab questions, pacing guides, and shopping lists.

Table of Contents

New Biotechnology: A Laboratory Skills Course Textbook

Description	*Catalog #*	*List Price*	*EDU Price*
Teacher Edition (includes one each 166-1025EDU and 166-1026EDU)*	**166-1027EDU**	**$150.00**	**$120.00**
Student Edition (ISBN 978-0-9832396-0-4)	**166-1025EDU**	**117.00**	**94.00**
Teacher Supplement* (ISBN 978-0-9832396-1-1), teacher reference guide	**166-1026EDU**	**43.75**	**35.00**
***New* Laboratory Notebook (ISBN 975-0-9832396-2-8)**	**166-1051EDU**	**18.75**	**15.00**

* Teacher supplement contains guidance for the instructor including lab prep, activity timelines, skills assessment, and a pacing and purchasing guide. EDU price discounts are for qualified educational institutions and educators only. Items are available at list price for noneducators (must be ordered without an EDU suffix).

10% Off Special Offers on Textbook and AP Kit Bundles

Description	*Catalog #*	*EDU Price*	*Promo Price*
Student Edition, pGLO™ Bacterial Transformation Kit (1 each)	**166-1048EDU**	~~**$183.00**~~	**$164.70**
Student Edition, pGLO Bacterial Transformation Kit, Forensic DNA Fingerprinting Kit (1 each)	**166-1049EDU**	~~**313.00**~~	**281.70**
Student Edition, pGLO Bacterial Transformation Kit, Biofuel Enzyme Kit, Comparative Proteomics Kit I: Protein Profiler Module (1 each)	**166-1050EDU**	~~**475.00**~~	**427.50**

Must reference quote #12-Q35234.
Limit one per customer. Offer cannot be combined with other promotional offers. Promotional offer expires December 31, 2012.

Inquiry-Based AP Biology Kits

Hands-on Activities for AP Big Ideas 1, 2, 3, and 4

AP Biology *Kit Selection Guide*

	AP Big Idea			
	1	2	3	4
Analysis of Precut Lambda DNA Kit (166-0001EDU) $91.00			★	
Biofuel Enzyme Kit (166-5035EDU) $127.00	★	★		★
Comparative Proteomics Kit I: Protein Profiler Module (166-2700EDU) $165.00	★		★	★
Crime Scene Investigator PCR Basics™ Kit (166-2600EDU) $164.00			★	
Forensic DNA Fingerprinting Kit (166-0007EDU) $130.00			★	★
Genes in a Bottle™ Kit (166-2300EDU) $134.00			★	
pGLO™ Bacterial Transformation Kit (166-0003EDU) $89.00	★	★	★	★
pGLO Kit SDS-PAGE Extension (166-0013EDU) $87.00			★	
PV92 PCR Informatics Kit (166-2100EDU) $199.00	★		★	
Restriction Digestion and Analysis of Lambda DNA Kit (166-0002EDU) $104.00			★	

10% Off AP Biology Big Idea *Kit Combos*

	pGLO Bacterial Transformation Kit	Forensic DNA Fingerprinting Kit	Biofuel Enzyme Kit	PV92 PCR Informatics Kit	Comparative Proteomics Kit I: Protein Profiler Module	*10% Off* Special Offer Price
Big Ideas	**1, 2, 3, 4**	**3, 4**	**1, 2, 4**	**1, 3**	**1, 3, 4**	
166-9011EDU	★	★				**$197.10**
166-9012EDU	★	★	★			**311.40**
166-9013EDU	★	★	★	★		**490.50**
166-9014EDU	★	★	★	★	★	**639.00**

Inquiry & **AP Biology**

Check out our webinar

Web "Designing Instruction to Support the Revised AP Biology Course"

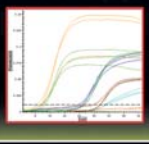
at explorer.bio-rad.com/webinars

Infuse your course with inquiry-based labs and provide students with the opportunity to actively think about scientific processes while performing and learning hands-on laboratory techniques and developing real scientific skills. The revised AP Biology curriculum requires the implementation of inquiry-based labs for just this reason.

Many Bio-Rad kits inherently contain inquiry and others can be easily adapted to address inquiry. To request our "**20 Questions to Master Inquiry**" for ideas on how to infuse inquiry into your favorite Bio-Rad AP labs (pGLO Bacterial Transformation kit, Forensic DNA Fingerprinting kit, Biofuel Enzyme kit, and Comparative Proteomics kit I: Protein Profiler Module) and our **AP Biology Learning Objectives alignment**, email us at **biotechnology_explorer@bio-rad.com**.

The PCR Revolution

Biotechnology Explorer™ PCR Kits and PCR Applications



Real-Time PCR Starter Kits

- *Agricultural biotechnology*
- *Food source authentication*
- *Forensic analysis*
- *Genetic analysis*

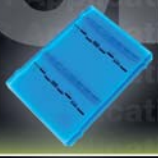
Crime Scene Investigator PCR Basics™ Kit

- *Forensic analysis*
- *Genetic analysis*

PCR

GMO Investigator Kit

- *GMO science*
- *Food source authentication*
- *Agricultural biotechnology*
- *Food safety*



PV92 PCR Informatics Kit

- *Population genetics*
- *Genetic analysis*

GAPDH *PCR Module*

- *DNA Sequencing*
- *Agricultural biotechnology*

The **Biotechnology Explorer program** offers an encompassing range of quality kits to satisfy your PCR needs. Ranging from entry-level PCR, eliminating the variable of extracting DNA to ensure a successful amplification experience, to the highly advanced nested PCR and real-time PCR applications, we have your PCR needs covered. For more detailed information on each kit please visit us at **explorer.bio-rad.com**.

Six Biotechnology Explorer ***PCR Kits***

Crime Scene Investigator PCR Basics Kit

This entry-level kit demonstrates how, using real-world forensic lab techniques, students learn which human DNA sequences are used for crime scene, missing person, mass disaster, and paternity investigations.

Description	*Catalog #*	*EDU Price*
Crime Scene Investigator PCR Basics Kit	**166-2600EDU**	**$164.00**
Crime Scene Investigator PCR Basics Kit plus Small DNA Electrophoresis Reagent Pack	**166-2650EDU**	**205.00**

PV92 PCR Informatics Kit

Finally, a wet lab to teach the Hardy-Weinberg equation! In this activity, your students use real-world forensic techniques to extract DNA from their hair follicles or cheek cells, and then use PCR amplification and electrophoresis to fingerprint their own DNA.

Description	*Catalog #*	*EDU Price*
PV92 PCR Informatics Kit	**166-2100EDU**	**$199.00**

GMO Investigator Kit

Using state-of-the-art DNA extraction techniques, PCR, and electrophoresis, students determine whether their favorite foods have been genetically modified — or not!

Description	*Catalog #*	*EDU Price*
GMO Investigator Kit	**166-2500EDU**	**$175.00**
GMO Investigator Kit plus Small DNA Electrophoresis Reagent Pack	**166-2550EDU**	**219.00**

GAPDH PCR Module

How do you amplify a gene when you do not know its sequence? In this lab, students will amplify genomic DNA via two rounds of PCR from control *Arabidopsis* and purified genomic DNA from any two novel plants. The novel plant DNA is extracted using the nucleic acid extraction module.

Description	*Catalog #*	*EDU Price*
***GAPDH* PCR Module**	**166-5010EDU**	**$399.00**
Nucleic Acid Extraction Module (used in conjunction with the *GAPDH* PCR module)	**166-5005EDU**	**169.00**

Real-Time PCR Starter Kits

How much DNA is there? Our real-time PCR kits are a great way for your students to see what an extremely valuable analytical tool real-time PCR is. Reveal not just what DNA is present, but how much.

Description	*Catalog #*	*EDU Price*
Crime Scene Investigator PCR Basics Real-Time PCR Starter Kit	**166-2660EDU**	**$530.00**
GMO Investigator Real-Time PCR Starter Kit	**166-2560EDU**	**538.00**

Free **Life Sciences and AP Workshops** at a Conference Near You!

2012 **Fall Teacher Conference and Workshop Schedule**

October	**9–10**	**NJSTA**	**Princeton**	**New Jersey**
October	**18–20**	**NSTA Regional**	**Louisville**	**Kentucky**
October	**19–21**	**CSTA**	**San Jose**	**California**
Oct.–Nov.	**31–3**	**NABT**	**Dallas**	**Texas**
November	**1–3**	**NSTA Regional**	**Atlanta**	**Georgia**
November	**8–10**	**STAT-CAST**	**Corpus Christi**	**Texas**
Nov.–Dec.	**29–1**	**ACTE**	**Atlanta**	**Georgia**
December	**6–8**	**NSTA Regional**	**Phoenix**	**Arizona**
2013 **Spring**				
April	**11–14**	**NSTA National**	**San Antonio**	**Texas**

A complete schedule can be found on the Web at **explorer.bio-rad.com/workshops**.

Life Sciences Core Content Standards **Kit Selection Guide**

Scientific inquiry: *field and lab investigations, scientific problem solving, environmental considerations, impact of research on society, career options*
Genetics: *genes and heredity, chromosomes and alleles, mutations, variation; DNA structure, function, replication; central dogma*
Cell and molecular biology: *cell structures and processes; plant, microbe, and animal cell types; growth, development, and interaction*
Chemistry of life: *structure and function of cellular components and processes (proteins, carbohydrates, lipids, nucleic acids, etc.)*
Evolution: *change in heritable traits in populations; natural selection; allelic and species diversity, phylogeny, extinction, and fossil record*
Environmental and health science: *interactions in natural systems; biodiversity, natural resources, food webs, energy pyramid, human impact; disease and epidemiology*
Advanced concepts and techniques: *going beyond the textbook, applying the results to the real world*

Scientific inquiry	*Genetics*	*Cell and molecular biology*	*Chemistry of life*	*Evolution*	*Environmental and health science*	*Advanced concepts and techniques*		
★			★		★		**IDEA Kit – Inquiry Dye Electrophoresis Activity** (166-5075EDU)	Introductory
★			★		★		**STEM Electrophoresis kit** (166-5090EDU)	
★		★	★		★		**Biofuel enzyme kit** (166-5035EDU) — **AP Big Ideas 1, 2, 4**	
★	★		★				**Microbes and health kit** (166-5030EDU)	
★	★	★	★				**Genes in a Bottle™ kit** (166-2300EDU) — **AP Big Idea 3**	
★	★	★	★				**pGLO™ bacterial transformation kit** (166-0003EDU) — **AP Big Ideas 1, 2, 3, 4**	
★		★	★				**Green fluorescent protein (GFP) chromatography kit** (166-0005EDU)	
★	★	★	★		★		**Secrets of the Rainforest™ kit** (166-0006EDU)	
★		★					**Size exclusion chromatography kit** (166-0008EDU)	
★		★					**Got Protein?™ kit** (166-2900EDU)	
★	★	★	★		★		**ELISA Immuno Explorer™ kit** (166-2400EDU)	Intermediate
★	★		★	★			**Forensic DNA fingerprinting kit** (166-0007EDU) — **AP Big Ideas 3, 4**	
★	★	★	★				**Analysis of precut lambda DNA kit** (166-0001EDU) — **AP Big Idea 3**	
★	★	★	★				**Restriction digestion and analysis of lambda DNA kit** (166-0002EDU) — **AP Big Idea 3**	
★		★	★				**pGLO kit SDS-PAGE extension** (166-0013EDU) — **AP Big Idea 3**	
★	★		★	★			**Crime Scene Investigator PCR Basics™ kit** (166-2600EDU) — **AP Big Idea 3**	
★	★	★	★	★	★		**Comparative proteomics kit I: protein profiler module** (166-2700EDU) — **AP Big Ideas 1, 3, 4**	
★	★	★	★	★	★		**Comparative proteomics kit II: western blot module** (166-2800EDU)	Advanced
★	★	★	★	★			**PV92 PCR informatics kit** (166-2100EDU) — **AP Big Ideas 1, 3**	
★	★	★	★	★	★		**GMO Investigator™ kit** (166-2500EDU)	
★	★		★	★		★	**Crime Scene Investigator PCR Basics real-time PCR starter kit** (166-2660EDU)	
★	★	★	★	★	★	★	**GMO Investigator real-time PCR starter kit** (166-2560EDU)	
★	★	★	★	★	★	★	**Cloning and sequencing explorer series** (166-5000EDU)	
★	★	★	★			★	**Protein expression and purification series** (see page 16 for more information)	

BIO-RAD

Educational Pricing Contract Application
As an educator you are entitled to discount pricing on all Bio-Rad products. To initiate setup of a new education account, simply fax or mail this page to Bio-Rad. If you are ready to place your first order, send this page and attach a purchase order with the numbers and descriptions of the items you wish to purchase.

Biotechnology Explorer Program
Bio-Rad Laboratories, Inc.
2000 Alfred Nobel Drive
Hercules, CA 94547 USA

Fax to 1-800-879-2289 or 1-510-741-5800.

Re: Educational Discount
We are an educational facility interested in using Bio-Rad products to teach our students. We would like to receive a teaching lab discount and understand that the Bio-Rad education discount is available only to educators at the K–12 and undergraduate levels. This letter is our confirmation that the products we order through our educational account will be used only to educate students in a classroom or teaching lab environment and will not be used for basic scientific research. We are sending this letter in order to:

- ☐ Initiate setup of a new educational account with Bio-Rad Laboratories
  (If tax exempt, please include a copy of the school's tax certificate)
- ☐ Place a new order, with PO attached
- ☐ Confirm an order identification number (please fill in order number) _____

Name of contact: _____

Department: _____

School or institution: _____

We are a (please check one): ☐ High school ☐ Two-year/Community college
☐ College or undergraduate teaching laboratory ☐ Other _____

Bill to address: _____

City/state/ZIP code: _____

Phone number: _____ Fax number: _____

Ship to address: _____

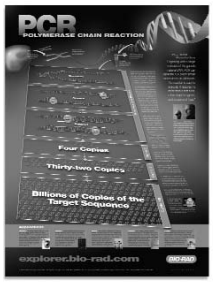
City/state/ZIP code: _____

Phone number: _____ Fax number: _____

Email address: _____

Signature: _____

Free Full-Color PCR Posters and New 2012/13 Biotechnology Explorer™ Catalogs



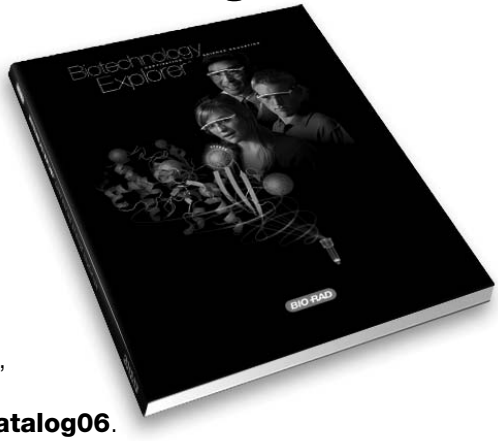
Free Full-Color ***PCR Poster***

See a detailed visual explanation of the polymerase chain reaction process: how it works, why it works, and what you need it for in the scientific research world. Learn about the PCR revolution and the hot research areas using PCR now.

While supplies last — fill in and mail the attached postage-paid card to get your full-color, giant-sized **free PCR poster**.

New 2012/13 ***Biotechnology Explorer Catalog***

Free Catalog. Exciting new kits will ignite your classroom with hands-on lab activities and learning experiences. Check out the new lab equipment, refresh kit components, and smart, reusable plastic supplies. And, as always, get **20–40% off** list prices for all Bio-Rad research-quality products.



Smartphone Information

Three ways to get your catalog: call **1-800-424-6723**, fill in and mail the attached postage-paid card, or visit us on the Web at **www.bio-rad.com/ad/explorercatalog06**.

Find out more about the **Biotechnology Explorer™ program professional development options** & **get some free stuff!**

20 to **40% off** *list prices*

Name _____ Title _____

Institution _____

Department _____ Bldg. _____ Room no. _____

Address _____

City _____ State _____ ZIP code _____

( ) Phone _____

( ) Fax _____

Email _____ *(By providing my email address I agree to receive email about Bio-Rad products and events.)*

We want to hear from you!

What are your professional development objectives? _____

What challenges do you face in preparing students for biotech careers? _____

☐ Please have a Bio-Rad curriculum training specialist contact us about meeting our teaching goals and professional development needs in our own district today.

Free stuff and more:

☐ Free Biotechnology Explorer catalog (bulletin 2112)
☐ Free PCR poster (bulletin 5886)
☐ Hey! Have my Bio-Rad account representative call me
☐ I would like to receive the Bio-Rad eFocus email newsletter

Fill in and return this card today or, for immediate information, call **1-800-424-6723**.

Bulletin 6296 12-1052 912

Ask the Experts — Next Generation Science Standards & AP Biology Redesign

Do you feel uneasy about the science practices component of the Next Generation Science Standards and the AP Biology redesign? No worries, this is not as difficult a task as it may seem. One way to approach this change and infuse inquiry into your lessons is to put students in groups and then pose a question such as:

"How important is the 10 minute recovery time during bacterial transformation?"

Then ask students to make a list of things they need to consider when trying to answer this question, which may include:

- *Why do bacteria need recovery time?*
- *How am I going to control my experiment?*
- *What kind of data do I need to collect?*

Sherri Andrews
Curriculum and Training Specialist and Biotechnology Explorer™ Professional Development Team Member

Have the class discuss their questions and, as a group, identify which are most important. You may need to ask questions to guide their thinking, such as:

- *Is it beneficial to start from a published protocol?*
- *How should we modify the protocol to answer our question?*
- *What data do we need to collect to be able to draw a conclusion that answers our questions?*

Have each student group write a protocol and present it to the class. Decide which one is best to do as a class or approve individual groups to carry out their protocols. Then perform the experiment(s). Have each student group analyze the data and present their findings to the class. After all presentations are complete, discuss how the lab could have been done better and/or propose a new question to consider.

This method of teaching fosters the tenets of the changes being made in science education that require educators to facilitate scientific and engineering practices within a discipline's core ideas.

To get started contact us at **biotechnology_explorer@bio-rad.com** and request our *20 Questions to Get Started with Inquiry*!

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2000 Alfred Nobel Drive
Hercules, CA 94547-9980

Genes in a Bottle™ Kit

Can you see your DNA?

New Free **Catalog!** *(see page 11)*

Genes in a Bottle Kit

Each kit contains sufficient materials for 36 students.

Genes in a Bottle Kit

Catalog # . . . . . .EDU Price

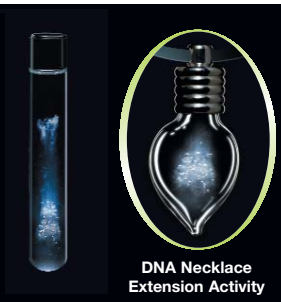
166-2300EDU* **$134.00**

Ships and stores at room temperature.
* Includes one DNA extraction module and two DNA necklace modules.

166-2000EDU **95.00**
DNA Extraction Module

166-2200EDU **33.00**
DNA Necklace Module (18 necklaces)

Key Kit Features
- Use as introductory or capstone activity
- Perform real research techniques
- Extract, precipitate, and bottle your DNA
- Complete in one 45 minute lab session



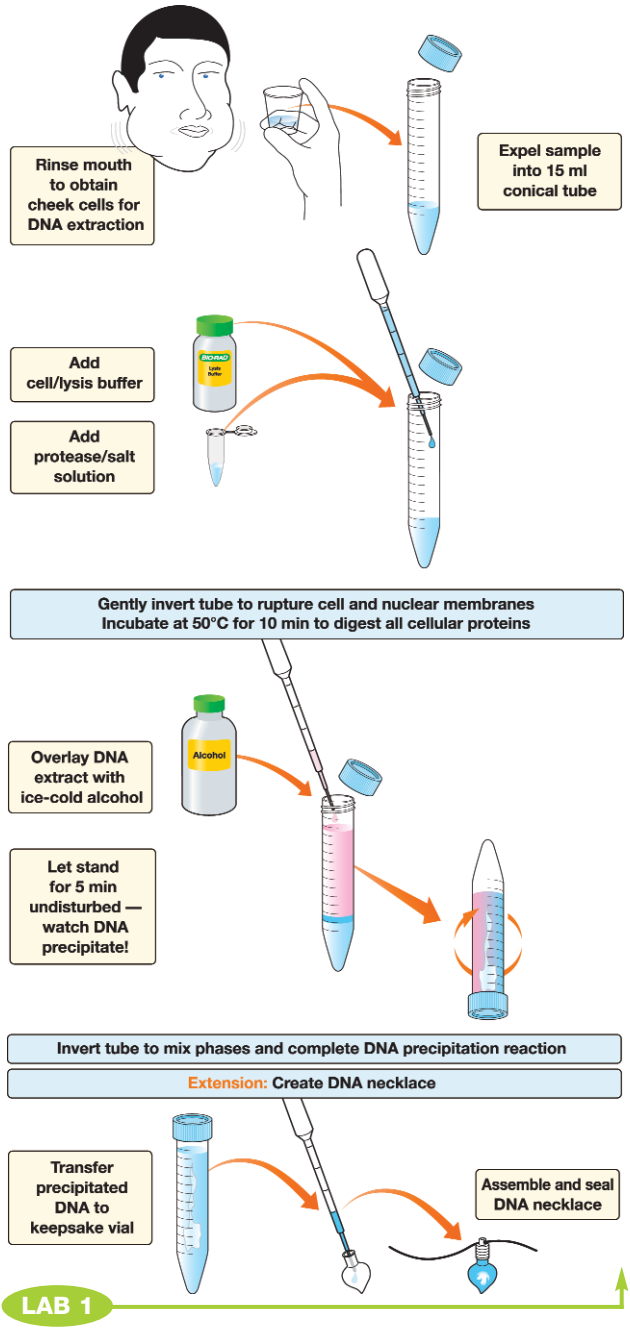
DNA Necklace Extension Activity

I Love Your DNA

☐ **I Love Your DNA Tattoos**
Pack of 200 temporary tattoos

166-2004EDU **$22.00**

Educational discounts apply only to items ordered with an EDU suffix. EDU price discounts are for qualified educational institutions and educators only.



Make your biology personal. Introduce your students to molecular biology with their own DNA! Enable your students to see the normally invisible substance of life and begin to comprehend the meaning of their own genetic makeup. In this activity your students employ the same real-world laboratory procedure used to extract DNA from many different organisms for a variety of biotechnology research applications. Students extract genomic DNA from their own cheek cells, then precipitate and bottle it in a fabulously cool necklace.

From cell structure to genetics to the chemistry of life — this kit integrates multiple life science standards in a single lesson. Seeing DNA makes it real. Wearing it makes the lesson memorable!

Comparative Proteomics Kits I and II:
Protein Profiler and Western Blot Modules

Comparative Proteomics Kits I and II: Protein Profiler and Western Blot Modules

Each kit contains sufficient materials for 8 student workstations. We recommend 2–4 students per workstation.

Protein Profiler Module

Catalog # . . . . . .EDU Price

166-2700EDU $165.00

Convenient lyophilized reagents. Ships at room temperature. Immediately store temperature-sensitive reagents at –20°C. Obtain fish samples locally. Mini-PROTEAN® TGX™ precast gels are available separately.

Western Blot Module

166-2800EDU 190.00

Convenient lyophilized reagents. Ships at room temperature. Immediately store temperature-sensitive reagents at –20°C as indicated.

Protein Profiler and Western Blot Modules

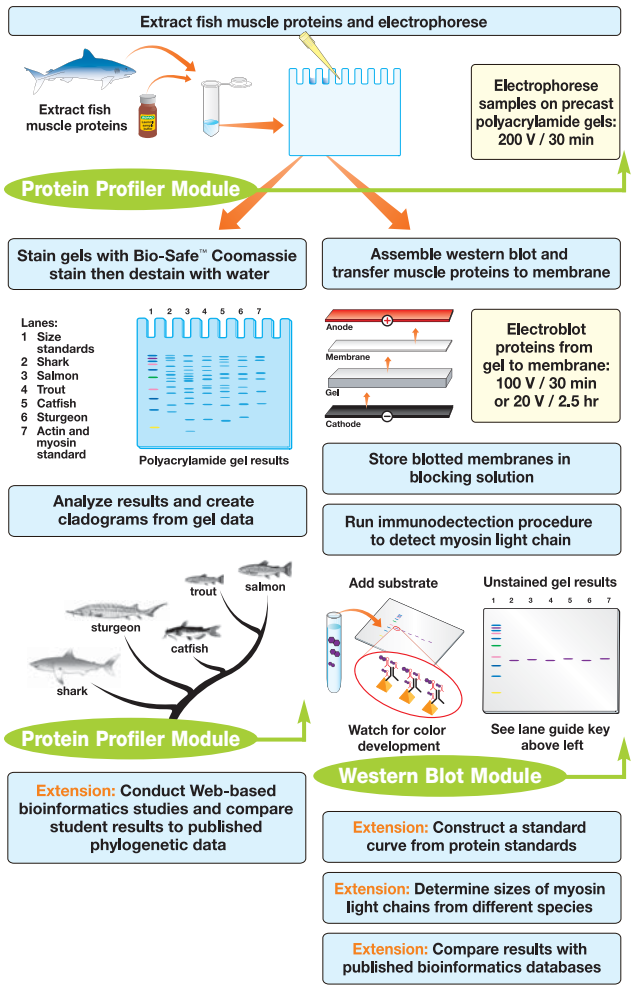
166-2850EDU 345.00

Key Kit Features for Both Modules

- Aligns with **AP Biology Big Ideas 1, 3, 4**
- Explore evolution and immunodetection
- Study protein structure/function
- Apply protein electrophoresis
- Construct cladograms
- Apply immunology
- Use antibodies as tools
- Complete in seven or eight 45 minute lab sessions

Mini-PROTEAN TGX gel 4–20%, 10-well, 2 gels/box, 456-1093SEDU $15.20

Educational discounts apply only to items ordered with an EDU suffix. EDU price discounts are for qualified educational institutions and educators only.



The Protein Profiler Module moves beyond DNA and allows your students to employ protein gel electrophoresis to explore evolution at the molecular level using the central molecular framework of biology:

DNA ➤ RNA ➤ Protein ➤ Trait — Phenotype

Students generate protein profiles from the muscle tissues of various species of fish to test the hypothesis that protein fingerprints can indicate evolutionary relatedness. Based on their own results, students can decide whether their results support biological evolution.

The western blot module takes the Bio-Rad protein profiler module to the next level by specifically identifying myosin from the hundreds of other muscle proteins in the profiles. From their protein profiler results, students make educated guesses as to the identities of the proteins in their gels. Via western blotting, antibodies confirm the presence and location of one specific protein, myosin light chain, in each species' profile. Measurable differences in the molecular weights of the myosin light chain proteins from different species lead students to hypothesize about how these variations relate to evolutionary relationships of the species.

Get our free curriculum on the Web at **explorer.bio-rad.com**.

V3 Western Workflow™ (stain-free rapid blotting)

Amazing time savings — western blotting in less than 2 hours!

V3 Western Workflow

Each kit contains sufficient materials for 8 student workstations.

Rapid Blotting + V3 Western Workflow Starter Kit

Catalog # . . . . . .EDU Price

166-2875EDU* $545.00

Includes:

- Protein Profiler and Western Blot Modules
- Trans-Blot Turbo mini nitrocellulose transfer pack, 10 pack
- TGX Stain-Free precast gels, 4-20%, 10 pack
- Rapid Blotting + V3 Western Workflow Application Note

Obtain fish samples locally. Mini-PROTEAN® TGX™ Stain-Free gels require a UV imager to visualize the resolved protein samples. Traditional SDS-PAGE gels can be used in place of Mini-PROTEAN TGX Stain-Free gels, but require staining/destaining of gels to visualize the resolved protein samples.

Save Time and ***$1,195.40*** — Bundle Special Offer

V3 Western Workflow Bundle Special Offer — ***Free PowerPac Basic Power Supply and Tetra Cell***

Catalog # . . . . . .EDU Price

Trans-Blot Turbo transfer system
170-4150EDU $2,264.00

Gel Doc EZ Imaging System with Stain-free Sample Tray
170-8270EDU 6,680.00

Rapid Blotting + V3 Western Workflow Starter Kit
166-2850EDU . . . . . ~~545.00~~

PowerPac Basic power supply
164-5050EDU . . . . . ~~316.00~~

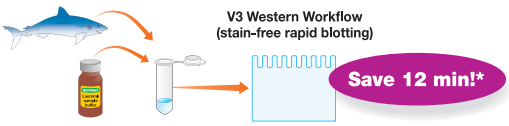
Mini-PROTEAN Tetra Cell 2-gel system
165-8005EDU . . . . . ~~334.40~~

Special Promotional Offer **$8,944.00**

Must reference quote #12-Q32771.

Limit one per customer. Offer cannot be combined with other promotional offers. For the free items, you must include the catalog numbers as separate items on your order form. Promotional offer expires December 31, 2012.

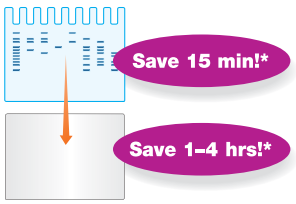
Extract fish muscle proteins and electrophorese samples on TGX precast polyacrylamide gels for 18 min at 300 V



Visualize separated proteins without staining/destaining

Assemble western blot and transfer muscle proteins to membrane using the Trans-Blot Turbo transfer system

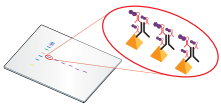
Transfer proteins from gel to membrane



* Optional entry points for time savings when using some traditional equipment and techniques.

V3 Western Workflow (stain-free rapid blotting) Option: Image gel or blot after transfer to confirm protein transfer to blot

Perform immunodetection procedure to detect myosin light chain and watch for color development



LAB 1

Hands-On time expenditure, in min

	Tank blotting	Rapid blotting (staining required)	V3 Western Workflow (stain-free rapid blotting)
Protein extraction	15	15	15
Electrophoresis	18	18	18
Protein visualization	180	180	< 3
Protein transfer			
Equilibration	15	0	0
Setup	30	5	5
Transfer	30–150	15	15
Immunoblotting	45	45	45
Color detection		all 10 min–overnight	
Total Hands-On Time	343–463	288	111
Time Savings	—	≥ 55	≥ 232

Western blotting in less than 2 hours! Using our new rapid blotting or V3 Western Workflow (stain-free rapid blotting) options allow you to complete the entire western blot workflow in less than 2 to 5 hours depending on which time saving steps you incorporate. TGX Stain-Free gels combined with our super-fast Trans-Blot Turbo transfer system provide the fastest speed and most time savings — allowing you to complete the workflow in less than a single 3 hour lab block. Teach your students about the exciting new chemistry that allows visualization of samples separated on PAGE gels without staining! To learn more visit us at **explorer.bio-rad.com** to download the Rapid Blotting + V3 Western Workflow application note.

Advanced Level: *The Cloning and Sequencing Explorer Series and Protein Expression and Purification Series*

Free PowerPac™ Basic and Tetra Cell Offer

Integrated Molecular Biology Labs

Purchase a Cloning and Sequencing Explorer Series and a Protein Expression and Purification Series — ***get a free PowerPac Basic Power Supply and Tetra Cell 2-gel System***

The complete Cloning and Sequencing series supports 12 workstations.

Cloning and Sequencing Explorer Series

Catalog # . . . . . .EDU Price

166-5000EDU $1,525.00

Plus **Protein Expression and Purification Series**

Centrifugation Purification Process

Catalog # . . . . . .EDU Price

166-5040EDU 567.00

Free PowerPac Basic and Tetra Cell Offer — Must reference quote #12-Q35539.

or Hand-Packed Column Process

Catalog # . . . . . .EDU Price

166-5045EDU 718.00

Free PowerPac Basic and Tetra Cell Offer — Must reference quote #12-Q35541.

or Prepacked Cartridge Process

Catalog # . . . . . .EDU Price

166-5050EDU 718.00

Free PowerPac Basic and Tetra Cell Offer — Must reference quote #12-Q35542.

PowerPac Basic Power Supply

166-5050EDU . . . . . ~~316.00~~

Mini-PROTEAN Tetra Cell 2-gel system

165-8005EDU . . . . . ~~334.40~~

Limit one per customer. For the free items, you must include the catalog numbers as separate items on your order. Offer cannot be combined with other promotional offers. Promotional offer expires December 31, 2012.

Free PowerPac™ Basic and Tetra Cell Offer

— a $650.40 Savings

Integrated Molecular Biology Labs! Looking for authentic lab experiences that carry a gene or protein of interest from isolation to analysis? Bio-Rad's modular lab series provide validated procedures, easy preparation, and reproducible success year after year. Visit our website to learn about our advanced series for cloning, sequencing, and bioinformatics, and protein expression and purification using affinity chromatography. These flexible, modular lab series can be used as capstone projects or a complete molecular biology course.

Cloning and Sequencing Explorer Series

Available as a complete series (supports 12 workstations) or as individual modules:*

- **Nucleic Acid Extraction**
- ***GAPDH* PCR**
- **Electrophoresis**
- **PCR Kleen™ Spin Purification**
- **Ligation and Transformation**
- **Microbial Culturing**
- **Aurum™ Plasmid Mini Purification**
- **Sequencing and Bioinformatics**

Protein Expression and Purification Series

Available as a complete series or as individual modules:

- **Growth and Expression**
- **SDS-PAGE Electrophoresis**
- **Purification**
  Option 1: **Centrifugation Purification Process**
  (for purification using a 16K microcentrifuge) — supports 12 workstations
  Option 2: **Hand-Packed Column Purification Process**
  (for use with chromatographic purification instrumentation; allows students to pour their own columns) — supports 4 workstations
  Option 3: **Prepacked Cartridge Purification Process**
  (providing the best experience with chromatographic purification instrumentation through the quality of the prepacked cartridges) — supports 4 workstations
- **DHFR Enzymatic Assay**
- **Assessment** *(not included with complete series — purchase separately — catalog # 166-5070EDU, EDU price $50.00)*

* Visit us at **explorer.bio-rad.com** for individual module information

☐ ***New and Improved***
Professional Adjustable-Volume Digital Micropipets

- Three-year warranty
- Fully autoclavable micropipet that accommodates standard pipet tips
- Adjustable digital dial with locking mechanism, slender contoured grip, and ergonomic tip ejector

166-0499EDU (0.1–2 µl)
166-0505EDU (0.5–10 µl)
166-0506EDU (2–20 µl)
166-0507EDU (20–200 µl)
166-0508EDU (100–1,000 µl)

Each pipet only **$245.00**

Free Micropipet Tips ***Offer***

Get 960 free micropipet tips with the purchase of the 8-channel micropipet ***— a $47.20 savings.***

☐ ***New*** **8-Channel Micropipet**

- Standard 96-well format
- Continuously adjustable volume selection (20–200 µl) with thumbwheel or push button
- Volume lock
- Rotating manifold
- Curved ejector bar reduces ejection force
- Fully autoclavable

166-0495EDU **$552.00**

☐ **MTP-35 Tips**

- 1–200 µl yellow tips
- 10 racks of 96 tips each

223-9303EDU . . . . . ~~**$47.20**~~

Special Offer **$552.00**

Must reference quote #12-Q26658.

Limit one per customer. Offer cannot be combined with other promotional offers. Promotional offer expires December 31, 2012.

☐ **Micropipet Rack**

Designed for the lab benchtop with wipe-and-clean surface and a nonskid base.

- Holds 9 single micropipets

166-0554EDU **$31.00**

☐ **Fixed-Volume Micropipets**

Get all the accuracy of standard adjustable-volume micropipets — but at a fraction of the price!

166-0511EDU (5 µl)
166-0512EDU (10 µl)
166-0513EDU (20 µl)
166-0515EDU (50 µl)

Each pipet only **$24.00**

Save $268.20 with Set

Professional Pipet Backpack set includes four adjustable-volume digital micropipets, four racks of various volume tips, a carousel pipet rack, and a Bio-Rad backpack ***— a $268.20 everyday savings.***

☐ ***New*** **Professional Pipet Backpack Set**

Professional Adjustable-Volume Digital Micropipets
(0.5–10 µl) **$245.00**
(2–20 µl) **245.00**
(20–200 µl) **245.00**
(100–1,000 µl) **245.00**
Micropipet Tips
TBR-14, -35, -40, and Prot/Elec™ pipet tips racks **43.20**
Carousel Pipet Rack
Six-place carousel rack **120.00**
Bio-Rad Backpack . . . . . **Free**

Total value . . . . . ~~**1,143.20**~~

166-0486EDU *Education Price* **$875.00**

☐ ***New*** **Pipet Controller**

- Volume range: 1–100 ml
- 120 V cordless
- Single-hand operation

166-0490EDU **$277.44**

☐ ***New*** **Carousel Pipet Rack**

Six-place carousel rack conveniently rotates for easy access to all your micropipets. (Micropipets not included)

166-0487EDU **$120.00**

☐ **Classroom Adjustable-Volume Digital Micropipets**

These adjustable pipets deliver exceptional classroom performance.

- Two-year warranty
- Adjustable digital dial with convenient tip ejector
- Uses standard pipet tips

166-0550EDU (0.5–10 µl)
166-0551EDU (2–20 µl)
166-0552EDU (20–200 µl)
166-0553EDU (100–1,000 µl)

Each pipet only **$120.00**

☐ **Green Racks**
Durable polypropylene construction.

- Holds 80 x 1.5/2.0 ml tubes
- 6.1 x 23.1 x 2.7 cm (W x D x H)
- Set of 5 racks

166-0481EDU **$46.00**

☐ **Storage Boxes**
Durable polypropylene construction with alphanumerically labeled translucent lid.

- Holds 100 x 1.5/2.0 ml tubes
- 14.2 x 14.2 x 5.5 cm (W x D x H)
- Set of 5 multicolored racks

166-0482EDU **$72.00**

☐ **96-Place PCR-Tube Rack and Cover**

- Holds 96 tubes
- Set of 5 multicolored racks

TRC-0501EDU **$30.40**

☐ **DyNA Chill Cooler**
Keeps your precious 1.5–2.0 ml microtube samples chilled from –15°C to ambient for 8 hours without ice

166-0564EDU **$68.00**

New Storage Racks

☐ ***New*** **15 ml Tube Rack**

- Can be frozen or autoclaved
- Holds 60 x 15 ml tubes
- 10.5 x 25 x 7.2 cm (W x D x H)
- Set of 5 racks

166-0483EDU **$69.00**

☐ ***New*** **50 ml Tube Racks**

- Can be frozen or autoclaved
- Holds 24 x 50 ml tubes
- 11 x 30 x 8.5 cm (W x D x H)
- Set of 5 racks

166-0484EDU **$69.00**

☐ ***New*** **Cuvette Racks**
These cuvette racks are essential for organizing cuvette samples and avoiding accidental spills.

- Holds 12 standard size cuvettes
- 5 x 17.2 x 1.5 cm (W x D x H)
- Set of 5 racks

166-0485EDU **$54.00**

☐ **Digital Dry Bath**
This digitally controlled dry bath is perfect for a multitude of laboratory procedures where incubation of samples is needed.

- Accurate microprocessor control with digital display
- Easy user calibration
- Includes 24 x 1.5 ml heating block

166-0562EDU **$438.00**

New Heating Blocks

New Optional heating blocks for 0.5, 2.0, and 15 ml tubes

166-0565EDU **$92.00**
(fits 24 x 0.5 ml tubes)

166-0566EDU **92.00**
(fits 24 x 2.0 ml tubes)

166-0567EDU **92.00**
(fits 12 x 15 ml tubes)

☐ **Digital Dry Bath with All Four Heating Blocks**
Includes digital dry bath and 0.5, 1.5, 2.0, and 15 ml heating blocks.

166-0571EDU **$675.00**

☐ **MiniOpticon™ Two-Color Real-Time PCR Detection System**
Compact system, precise thermal control, temperature gradient capability, performs applications including quantitative real-time PCR, relative gene expression analysis, and allelic discrimination.

- 48-well plate or 6 x 8-tube strips
- 10–100 µl sample volumes

CFB-3120EDU . . . **$15,196.00**

☐ **SmartSpec™ Plus Spectrophotometer**
UV/visible spectrophotometer measures protein and DNA quantitative absorbance from 200 nm to 800 nm

170-2525EDU **$4,508.00**

☐ **Water Bath**

- Stainless-steel tank and lid
- Temperature range up to 100°C
- Over-temperature protection
- Includes thermometer

166-0504EDU **$590.00**

20–40% Off

New Free **Catalog!**
(see page 11)

☐ **Mini Centrifuge** (2,000 x g)
Includes microtube and PCR strip tube rotors and 0.4 ml and 0.5 ml tube adaptors; max. speed 6,000 rpm.

166-0603EDU **$299.00**

☐ **Mini Incubation Oven** (0.5 cu ft)
Compact oven is thermostatically controlled with access port for running temperature controlled experiments with mixing devices.

166-0501EDU **$375.00**

Adaptor sold separately

☐ **Model 16K** (16,000 x g) **Microcentrifuge**

- 1.5 ml or 2.0 ml tubes
- Max. speed 14,000 rpm

166-0602EDU **$1,900.00**

☐ **PCR Tube Adaptor**
(for #166-0602EDU)
Holds 16 individual 0.2 ml tubes.

166-0620EDU **$105.00**

☐ **Mini Rocker**
Compact design allows it to fit inside our mini incubation oven.

- Designed for processing blots and staining gels
- Optimal fixed speed and tilt
- 3-D motion

166-0710EDU **$399.00**

Adaptor sold separately

☐ **BR-2000 Vortexer**
General-purpose vortex mixer.

166-0610EDU **$275.00**

☐ **Flathead Dimpled Adaptor**
(for #166-0610EDU)

166-0622EDU **$45.00**

☐ **Tube Roller**
Compact design allows it to fit inside our mini incubation oven.

- Horizontal and vertical motions
- Noiseless operation
- Coldroom compatible
- Dual format rotisseries
- 3 interchangeable rotisseries

166-0711EDU **$465.00**

Discount EDU prices.
Get free quotes.

Or, **set up a Bio-Rad account today!**

Use your Visa, MasterCard, or American Express card.

Prices shown reflect our education discount and are limited to qualified educational institutions and educators only and are subject to change. All promotional items must be included on your order form with special pricing indicated. Offers cannot be combined with other offers. Promotional offers expire December 31, 2012.

Email: Send your request for a price quote to **lsg.quotes.us@bio-rad.com**.

Phone: 1-800-424-6723 x6757. Always include catalog numbers, your name, address, and phone and fax numbers. (Quote requests may also be left on voice mail.)

explorer.bio-rad.com

For more laboratory equipment or for immediate information, call 1-800-424-6723.

EN-61010 safety compliant

☐ **PowerPac™ Basic Power Supply**
Constant voltage or current output, real-time monitoring, and pause/resume features.

- Runs 4 cells simultaneously
- 400 mA maximum current
- 10–300 V in 1 V steps
- Timer controlled
- Fully programmable

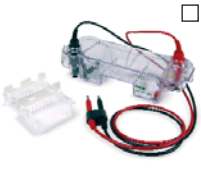
164-5050EDU **$316.00**

☐ **Mini-PROTEAN® Tetra Cell**
For 1-D vertical gel electrophoresis.

- Runs 1–4 mini gels
- Easy assembly
- Leak-free electrophoresis
- Run precast or handcast gels

165-8004EDU **$437.60**
(4-gel system, for Bio-Rad precast gels)

165-8005EDU **334.40**
(2-gel system, for Bio-Rad precast gels)



☐ **DNA Electrophoresis Systems**

Mini-Sub® Cell GT Cell
Includes 7 x 10 cm gel tray and two 8-well combs.

166-4000EDU **$235.00**

Mini ReadySub-Cell™ GT Cell
For ReadyAgarose precast gels.

170-4487EDU **216.80**

☐ **Mini Trans-Blot® Module**
Includes 2 gel holder cassettes, 4 fiber pads, modular electrode assembly, blue cooling unit only (no tank or lid).

170-3935EDU **$339.20**

Bio-Rad Laboratories, Inc.
2000 Alfred Nobel Drive
Hercules, CA 94547

Address service requested

Invite a Scientist to Your Classroom.

We're now piloting the Bio-Rad Science Ambassador Program for classrooms like yours. The program is designed so that students and scientists can explore science side by side.

- Bio-Rad helps match teachers with volunteer scientists
- Scientists and students perform fun and engaging classroom activities
- Activities are appropriate for students in grades 3–12

Take advantage of this unique, free program from Bio-Rad. Give your students an unforgettable hands-on experience with help from a research scientist. Share your passion for science!

To learn more, visit **www.bio-rad.com/scienceambassadors**.

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