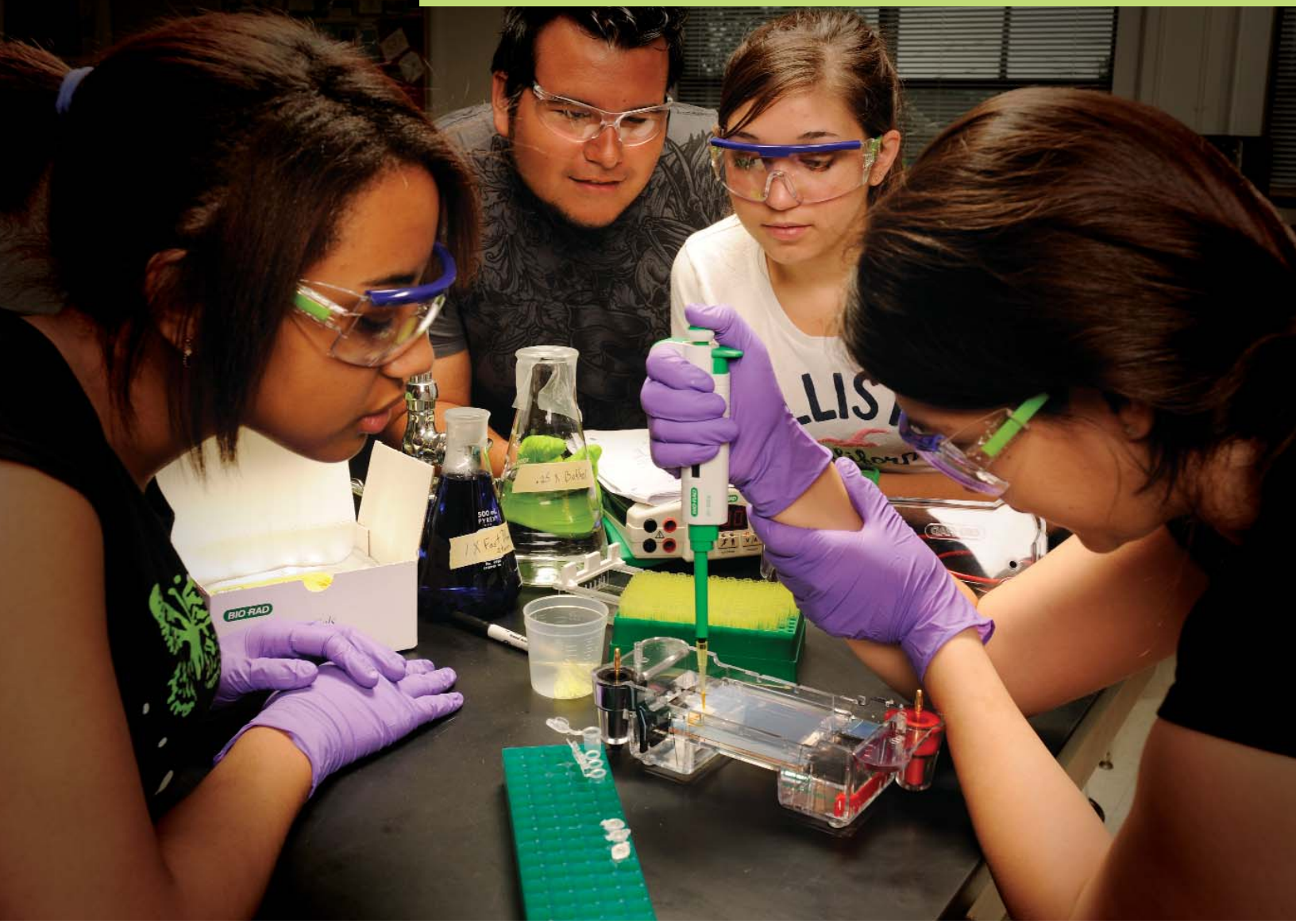

Biotechnology Explorer™
Refresh Kit Components Purchasing Guide:

- Complete Kits
- Individual Reagents and Supplies
- Bulk Quantities

BIO-RAD

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BIO-RAD

Ordering Information

		Number of workstations						
		8	16	32	64	128	256	512
		Equivalent number of kits						
Catalog Number	*Description*	1	2	4	8	16	32	64
166-0011EDU	**Precut Lambda DNA Kit Refill Package** includes DNA size standard, PstI lambda DNA digest, EcoRI lambda DNA digest, uncut lambda DNA, sample loading buffer, Fast Blast™ DNA stain	1	2	4	8	16	32	64
166-0742EDU	**50x TAE***, 100 ml	1	2	—	—	—	—	—
161-0743EDU	**50x TAE***, 1 L	—	—	1	1	2	—	—
161-0773EDU	**50x TAE***, 5 L cube	—	—	—	—	—	1	2
161-3100EDU	**Certified™ Molecular Biology Agarose***, 25 g	1	1	1	2	3	—	—
161-3101EDU	**Certified Molecular Biology Agarose***, 125 g	—	—	—	—	—	1	2
166-0420EDU	**Fast Blast DNA Stain***, 500x, 100 ml	1	1	1	1	1	1	2
166-0473EDU	**Colored 1.5 ml Microcentrifuge Tubes**, 6 colors, 600	1	1	1	1	2	4	7
223-9480EDU	**EZ™ Micro Test Tubes**, 1.5 ml, natural, 500	1	1	1	1	1	2	4
166-0479EDU	**Jellyfish Foam Floating Racks****, 8 racks, 12 microcentrifuge tube wells	1	1–2	1–4	1–8	1–16	1–32	1–64
166-0477EDU	**Gel Staining Trays****, 4	1	1–2	1–4	1–8	1–16	1–32	1–64

* Electrophoresis reagents are also available in convenient Fast Blast Electrophoresis Reagent Packs, these may be preferable and more economic options.
Note: The information provided for the packs assumes some reuse of TAE electrophoresis buffer. See bulletin 5891 for details on reuse of TAE buffer.

166-0450EDU Small Fast Blast DNA Electrophoresis Reagent Pack, makes 48 1% or 16 3% 7 x 10 cm agarose gels; includes 25 g agarose powder, 100 ml 500x Fast Blast DNA stain, 100 ml 50x TAE electrophoresis buffer

166-0455EDU Medium Fast Blast DNA Electrophoresis Reagent Pack, makes 270 1% or 90 3% 7 x 10 cm agarose gels; includes 125 g agarose powder, 100 ml 500x Fast Blast DNA stain, 1 L 50x TAE electrophoresis buffer

** Component is reusable, the number required will vary depending on the number of concurrent workstations.

Each complete kit supports 32 students.

7 x 10 cm ReadyAgarose™ gel runs in the Mini-Sub® cell GT cell

Ordering Information

Catalog Number	Description	Number of workstations: 8	16	32	64	128	256	512
		Equivalent number of kits: 1	2	4	8	16	32	64
166-0012EDU	**Restriction Digestion Kit TS Refill Package** includes HindIII, PstI, and EcoRI restriction enzymes, restriction buffer, uncut lambda DNA, lambda HindIII digest, sample loading buffer, Fast Blast DNA stain	1	2	4	8	16	32	64
166-0742EDU	**50x TAE***, 100 ml	1	2	4	—	—	—	—
161-0743EDU	**50x TAE***, 1 L	—	—	1	1	2	—	—
161-0773EDU	**50x TAE***, 5 L cube	—	—	—	—	—	1	2
161-3100EDU	**Certified Molecular Biology Agarose***, 25 g	1	1	1	2	3	—	—
161-3101EDU	**Certified Molecular Biology Agarose***, 125 g	—	—	—	—	—	1	2
166-0420EDU	**Fast Blast DNA Stain**, 500x, 100 ml	1	1	1	1	1	1	2
166-0473EDU	**Colored 1.5 ml Microcentrifuge Tubes**, 6 colors, 600	1	1	1	1	2	4	7
223-9480EDU	**EZ Micro Test Tubes**, 1.5 ml, natural, 500	1	1	1	1	1	2	4
166-0479EDU	**Jellyfish Foam Floating Racks****, 8 racks, 12 microcentrifuge tube wells	1	1–2	1–4	1–8	1–16	1–32	1–64
166-0477EDU	**Gel Staining Trays****, 4	1	1–2	1–4	1–8	1–16	1–32	1–64

* Electrophoresis reagents are also available in convenient Fast Blast Electrophoresis Reagent Packs, these may be preferable and more economic options.
Note: The information provided for the packs assumes some reuse of TAE electrophoresis buffer. See bulletin 5891 for details on reuse of TAE buffer.

166-0450EDU Small Fast Blast DNA Electrophoresis Reagent Pack, makes 48 1% or 16 3% 7 x 10 cm agarose gels; includes 25 g agarose powder, 100 ml 500x Fast Blast DNA stain, 100 ml 50x TAE electrophoresis buffer

166-0455EDU Medium Fast Blast DNA Electrophoresis Reagent Pack, makes 270 1% or 90 3% 7 x 10 cm agarose gels; includes 125 g agarose powder, 100 ml 500x Fast Blast DNA stain, 1 L 50x TAE electrophoresis buffer

** Component is reusable, the number required will vary depending on the number of concurrent workstations.

Each complete kit supports 32 students.

7 x 10 cm ReadyAgarose™ gel runs in the Mini-Sub® cell GT cell

Ordering Information

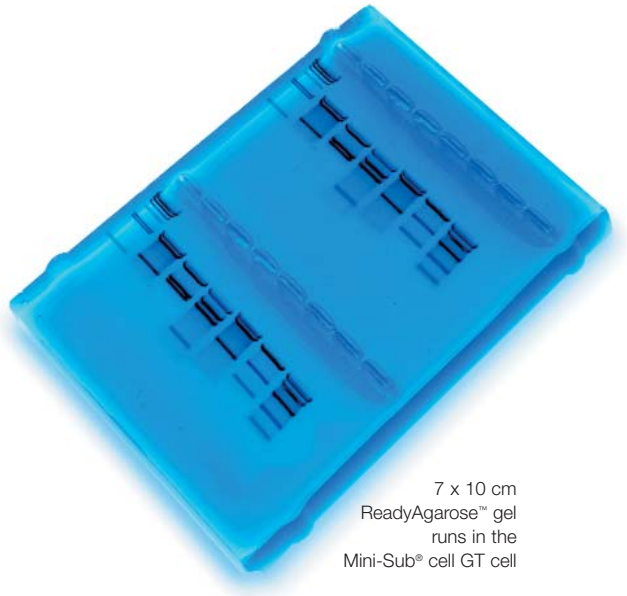
Catalog Number	Description	Number of workstations: 8	16	32	64	128	256	512
		Equivalent number of kits: 1	2	4	8	16	32	64
166-0027EDU	**DNA Fingerprinting Kit Refill Package*** includes crime scene and suspect DNA samples, EcoRI/PstI restriction enzyme mix, sample loading buffer, Fast Blast DNA stain, DNA size standard, sterile water	1	2	4	8	16	32	64
166-0742EDU	**50x TAE****, 100 ml	1	2	—	—	—	—	—
161-0743EDU	**50x TAE****, 1 L	—	—	1	1	2	—	—
161-0773EDU	**50x TAE****, 5 L cube	—	—	—	—	—	1	2
161-3100EDU	**Certified Molecular Biology Agarose****, 25 g	1	1	1	2	3	—	—
161-3101EDU	**Certified Molecular Biology Agarose****, 125 g	—	—	—	—	—	1	2
166-0420EDU	**Fast Blast DNA Stain****, 500x, 100 ml	1	1	1	1	1	1	2
166-0473EDU	**Colored 1.5 ml Microcentrifuge Tubes**, 6 colors, 600	1	1	1	1	2	4	7
223-9480EDU	**EZ Micro Test Tubes**, 1.5 ml, natural, 500	1	1	1	1	1	2	4
166-0479EDU	**Jellyfish Foam Floating Racks*****, 8 racks, 12 microcentrifuge tube wells	1	1–2	1–4	1–8	1–16	1–32	1–64
166-0477EDU	**Gel Staining Trays*****, 4	1	1–2	1–4	1–8	1–16	1–32	1–64

* EcoRI/PstI restriction enzyme mix is also available as an individual component.
166-0047EDU EcoRI/PstI restriction enzyme mix

** Electrophoresis reagents are also available in convenient Fast Blast Electrophoresis Reagent Packs, these may be preferable and more economic options.
Note: The information provided for the packs assumes some reuse of TAE electrophoresis buffer. See bulletin 5891 for details on reuse of TAE buffer.
166-0450EDU Small Fast Blast DNA Electrophoresis Reagent Pack, makes 48 1% or 16 3% 7 x 10 cm agarose gels; includes 25 g agarose powder, 100 ml 500x Fast Blast DNA stain, 100 ml 50x TAE electrophoresis buffer
166-0455EDU Medium Fast Blast DNA Electrophoresis Reagent Pack, makes 270 1% or 90 3% 7 x 10 cm agarose gels; includes 125 g agarose powder, 100 ml 500x Fast Blast DNA stain, 1 L 50x TAE electrophoresis buffer

*** Component is reusable, the number required will vary depending on the number of concurrent workstations.

Each complete kit supports 32 students.



7 x 10 cm ReadyAgarose™ gel runs in the Mini-Sub® cell GT cell

Refresh Kit Components: Crime Scene Investigator PCR Basics™ Kit (166-2600EDU))

Ordering Information

		Number of workstations						
		8	16	32	64	128	256	512
		Equivalent number of kits						
Catalog Number	*Description*	1	2	4	8	16	32	64
166-2601EDU	**Crime Scene Investigator PCR Basics Refill Pack*** includes PCR master mix, primers, allele ladder, orange G loading dye, crime scene and suspect DNA samples	1	2	4	8	16	32	64
166-0742EDU	**50x TAE****, 100 ml	1	2	—	—	—	—	—
161-0743EDU	**50x TAE****, 1 L	—	—	1	1	2	—	—
161-0773EDU	**50x TAE****, 5 L cube	—	—	—	—	—	1	2
161-3100EDU	**Certified Molecular Biology Agarose****, 25 g	1	1	2	—	—	—	—
161-3101EDU	**Certified Molecular Biology Agarose****, 125 g	—	—	—	1	2	3	—
161-3102EDU	**Certified Molecular Biology Agarose****, 500 g	—	—	—	—	—	—	2
166-0420EDU	**Fast Blast DNA Stain****, 500x, 100 ml	1	1	1	1	1	1	2
166-0473EDU	**Colored 1.5 ml Microcentrifuge Tubes**, 6 colors, 600	1	1	1	1	2	4	7
223-9480EDU	**EZ Micro Test Tubes**, 1.5 ml, natural, 500	1	1	1	1	1	2	4
TWI-0201EDU	**0.2 ml Tubes with Domed Caps**, natural, 1,000	1	1	1	1	1	2	4
223-9500EDU	**PCR Tube Capless Adapters*****, 500	1	1	1	1	2	4	7
TRC-0501EDU	**96-Place PCR Tube Rack and Cover***†**, 5	2	2–4	2–7	2–13	2–26	2–52	2–103
166-0477EDU	**Gel Staining Trays†**, 4	1	1–2	1–4	1–8	1–16	1–32	1–64

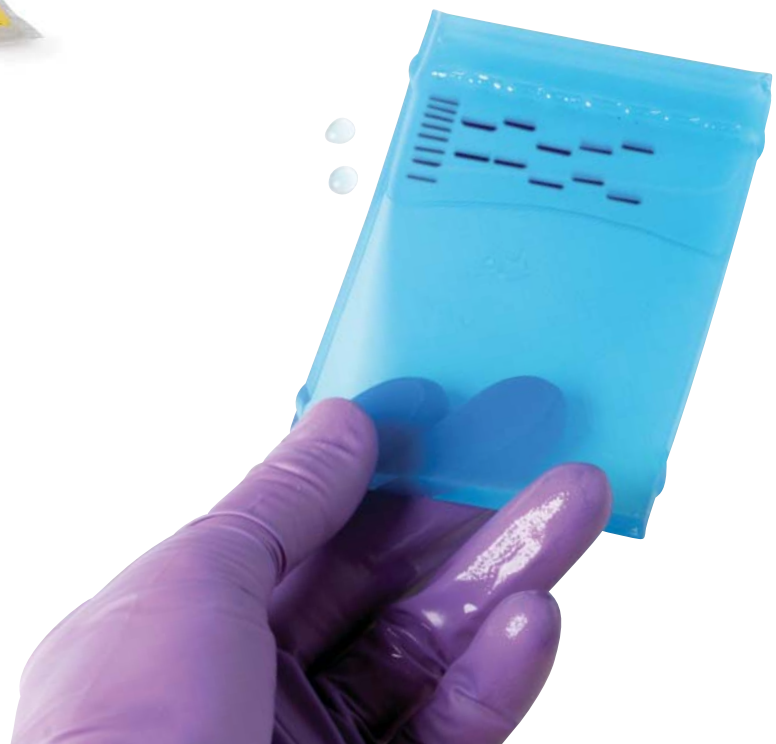
* 2x Master Mix is also available as an individual component.
166-5009EDU 2x Master Mix, 90 units, 1.2 ml, sufficient for 8 workstations

** Electrophoresis reagents are also available in convenient Fast Blast Electrophoresis Reagent Packs, these may be preferable and more economic options.
Note: The information provided for the packs assumes some reuse of TAE electrophoresis buffer. See bulletin 5891 for details on reuse of TAE buffer.
166-0450EDU Small Fast Blast DNA Electrophoresis Reagent Pack, makes 48 1% or 16 3% 7 x 10 cm agarose gels; includes 25 g agarose powder, 100 ml 500x Fast Blast DNA stain, 100 ml 50x TAE electrophoresis buffer
166-0455EDU Medium Fast Blast DNA Electrophoresis Reagent Pack, makes 270 1% or 90 3% 7 x 10 cm agarose gels; includes 125 g agarose powder, 100 ml 500x Fast Blast DNA stain, 1 L 50x TAE electrophoresis buffer
166-0460EDU Large Fast Blast DNA Electrophoresis Reagent Pack, makes 1,080 1% or 360 3% 7 x 10 cm agarose gels; includes 500 g agarose powder, 2 x 100 ml 500x Fast Blast DNA stain, 5 L 50x TAE electrophoresis buffer

*** PCR Tube Capless Adaptors are not required if 96-Place PCR Tube Racks are purchased.

† Component is reusable, the number required will vary depending on the number of concurrent workstations.

Each complete kit supports 32 students.



Ordering Information

		Number of workstations						
		8	16	32	64	128	256	512
		Equivalent number of kits						
Catalog Number	*Description*	1	2	4	8	16	32	64
166-2119EDU	**PV92 PCR Kit TS Refill Package*** includes PCR primers, positive controls, DNA molecular mass ruler, PCR master mix containing dNTPs, buffer, DNA polymerase	1	2	4	8	16	32	64
732-6030EDU	**InstaGene™ Matrix**, 20 ml	1	1	2	4	7	13	26
161-0767EDU	**Sample Loading Dye**, 5x, 10 ml	1	1	1	1	2	4	7
166-0742EDU	**50x TAE****, 100 ml	1	2	—	—	—	—	—
161-0743EDU	**50x TAE****, 1 L	—	—	1	1	2	—	—
161-0773EDU	**50x TAE****, 5 L cube	—	—	—	—	—	1	2
161-3100EDU	**Certified Molecular Biology Agarose****, 25 g	1	1	1	2	3	—	—
161-3101EDU	**Certified Molecular Biology Agarose****, 125 g	—	—	—	—	—	1	2
166-0420EDU	**Fast Blast DNA Stain****, 500x, 100 ml	1	1	1	1	1	1	2
166-0473EDU	**Colored 1.5 ml Microcentrifuge Tubes**, 6 colors, 600	1	1	1	1	2	4	7
223-9480EDU	**EZ Micro Test Tubes**, 1.5 ml, natural, 500	1	1	1	1	1	2	4
224-0110EDU	**Conical Tubes**, 1.5 ml, with installed O-ring screwcaps, sterile, 500	1	1	1	1	2	4	7
TWI-0201EDU	**0.2 ml Tubes with Domed Caps**, natural, 1,000	1	1	1	1	1	2	4
223-9500EDU	**PCR Tube Capless Adapters*****, 500	1	1	1	1	2	4	7
TRC-0501EDU	**96-Place PCR Tube Rack and Cover***†**, 5	2	2–4	2–7	2–13	2–26	2–52	2–103
166-0479EDU	**Jellyfish Foam Floating Racks†**, 8 racks, 12 microcentrifuge tube wells	1	1–2	1–4	1–8	1–16	1–32	1–64
166-0477EDU	**Gel Staining Trays†**, 4	1	1–2	1–4	1–8	1–16	1–32	1–64

* 2x Master Mix is also available as an individual component.
166-5009EDU 2x Master Mix, 90 units, 1.2 ml, sufficient for 8 workstations

** Electrophoresis reagents are also available in convenient Fast Blast Electrophoresis Reagent Packs, these may be preferable and more economic options.
Note: The information provided for the packs assumes some reuse of TAE electrophoresis buffer. See bulletin 5891 for details on reuse of TAE buffer.
166-0450EDU Small Fast Blast DNA Electrophoresis Reagent Pack, makes 48 1% or 16 3% 7 x 10 cm agarose gels; includes 25 g agarose powder, 100 ml 500x Fast Blast DNA stain, 100 ml 50x TAE electrophoresis buffer
166-0455EDU Medium Fast Blast DNA Electrophoresis Reagent Pack, makes 270 1% or 90 3% 7 x 10 cm agarose gels; includes 125 g agarose powder, 100 ml 500x Fast Blast DNA stain, 1 L 50x TAE electrophoresis buffer
166-0460EDU Large Fast Blast DNA Electrophoresis Reagent Pack, makes 1,080 1% or 360 3% 7 x 10 cm agarose gels; includes 500 g agarose powder, 2 x 100 ml 500x Fast Blast DNA stain, 5 L 50x TAE electrophoresis buffer

*** PCR Tube Capless Adaptors are not required if 96-Place PCR Tube Racks are purchased.

† Component is reusable, the number required will vary depending on the number of concurrent workstations.

Each complete kit supports 32 students.

7 x 10 cm ReadyAgarose™ gel runs in the Mini-Sub® cell GT cell

Ordering Information

Catalog Number	Description	Number of workstations: 8	16	32	64	128	256	512
		Equivalent number of kits: 1	2	4	8	16	32	64
166-2501EDU	**GMO Investigator Kit Reagent Refill Pack*** includes PCR master mix, GMO primers, plant PSII primers, GMO positive control DNA, PCR molecular weight ruler, orange G loading dye	1	2	4	8	16	32	64
732-6030EDU	**InstaGene Matrix**, 20 ml	1	1	2	4	7	13	26
166-0742EDU	**50x TAE****, 100 ml	1	2	—	—	—	—	—
161-0743EDU	**50x TAE****, 1 L	—	—	1	1	2	—	—
161-0773EDU	**50x TAE****, 5 L cube	—	—	—	—	—	1	2
161-3100EDU	**Certified Molecular Biology Agarose****, 25 g	1	1	2	—	—	—	—
161-3101EDU	**Certified Molecular Biology Agarose****, 125 g	—	—	—	1	2	3	—
161-3102EDU	**Certified Molecular Biology Agarose****, 500 g	—	—	—	—	—	—	2
166-0420EDU	**Fast Blast DNA Stain****, 500x, 100 ml	1	1	1	1	1	1	2
166-0474EDU	**Disposable Plastic Transfer Pipets**, sterile, 500	1	1	1	1	1	2	3
166-0473EDU	**Colored 1.5 ml Microcentrifuge Tubes**, 6 colors, 600	1	1	1	1	2	4	7
223-9480EDU	**EZ Micro Test Tubes**, 1.5 ml, natural, 500	1	1	1	1	1	2	4
224-0110EDU	**Conical Tubes**, 1.5 ml, with installed O-ring screwcaps, sterile, 500	1	1	1	1	2	4	7
TWI-0201EDU	**0.2 ml Tubes with Domed Caps**, natural, 1,000	1	1	1	1	1	2	4
223-9500EDU	**PCR Tube Capless Adapters*****, 500	1	1	1	1	2	4	7
TRC-0501EDU	**96-Place PCR Tube Rack and Cover***†**, 5	2	2–4	2–7	2–13	2–26	2–52	2–103
166-0479EDU	**Jellyfish Foam Floating Racks†**, 8 racks, 12 microcentrifuge tube wells	1	1–2	1–4	1–8	1–16	1–32	1–64
166-0477EDU	**Gel Staining Trays†**, 4	1	1–2	1–4	1–8	1–16	1–32	1–64

* 2x Master Mix is also available as an individual component.
166-5009EDU 2x Master Mix, 90 units, 1.2 ml, sufficient for 8 workstations

** Electrophoresis reagents are also available in convenient Fast Blast Electrophoresis Reagent Packs, these may be preferable and more economic options.
Note: The information provided for the packs assumes some reuse of TAE electrophoresis buffer. See bulletin 5891 for details on reuse of TAE buffer.
166-0450EDU Small Fast Blast DNA Electrophoresis Reagent Pack, makes 48 1% or 16 3% 7 x 10 cm agarose gels; includes 25 g agarose powder, 100 ml 500x Fast Blast DNA stain, 100 ml 50x TAE electrophoresis buffer
166-0455EDU Medium Fast Blast DNA Electrophoresis Reagent Pack, makes 270 1% or 90 3% 7 x 10 cm agarose gels; includes 125 g agarose powder, 100 ml 500x Fast Blast DNA stain, 1 L 50x TAE electrophoresis buffer
166-0460EDU Large Fast Blast DNA Electrophoresis Reagent Pack, makes 1,080 1% or 360 3% 7 x 10 cm agarose gels; includes 500 g agarose powder, 2 x 100 ml 500x Fast Blast DNA stain, 5 L 50x TAE electrophoresis buffer

*** PCR Tube Capless Adaptors are not required if 96-Place PCR Tube Racks are purchased.

† Component is reusable, the number required will vary depending on the number of concurrent workstations.

Each complete kit supports 32 students.

7 x 10 cm
ReadyAgarose™ gel runs
in the Mini-Sub® cell GT cell

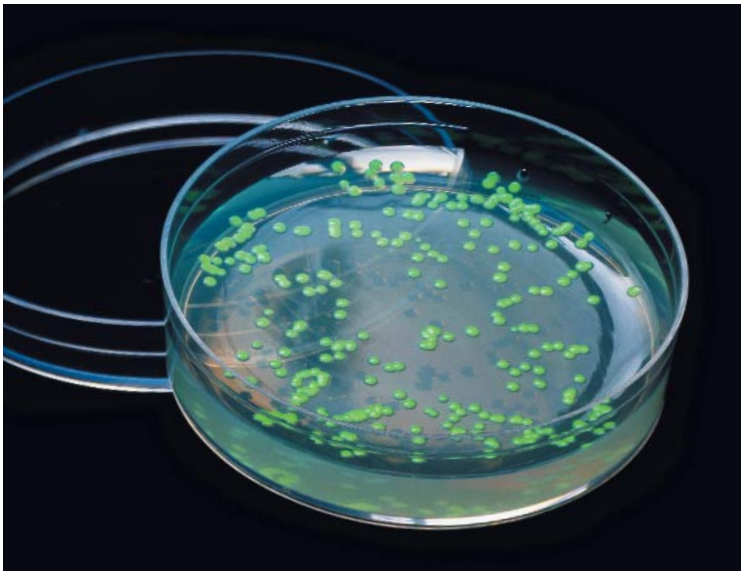
Ordering Information

		Number of workstations						
		8	16	32	64	128	256	512
		Equivalent number of kits						
Catalog Number	*Description*	1	2	4	8	16	32	64
166-0405EDU	**pGLO Plasmid***, 20 µg, lyophilized	1	2	4	8	16	32	64
166-0406EDU	**Arabinose***, 600 mg, lyophilized	1	2	4	8	16	32	64
166-0407EDU	**Ampicillin***, 30 mg, lyophilized	1	2	4	8	16	32	64
166-0408EDU	***E.coli* Strain HB101 K-12***, lyophilized	1	2	4	8	16	32	64
166-0409EDU	**Transformation Solution***, 15 ml	1	2	4	8	16	32	64
166-0421EDU	**LB Broth***, 10 ml	1	2	4	8	16	32	64
166-0600EDU	**LB Nutrient Agar Powder**, 20 g, makes forty 60 mm agar plates	1	2	4	8	—	—	—
166-0472EDU	**LB Nutrient Agar Powder**, 500 g, makes one thousand 60 mm agar plates	—	—	—	—	1	2	3
166-0470EDU	**Petri Dishes**, 60 mm, sterile, 500	1	1	1	1	2	3	6
166-0471EDU	**Inoculation Loops**, 10 µl, sterile, 80	1	2	4	8	16	32	64
166-0474EDU	**Disposable Plastic Transfer Pipets**, sterile, 500	1	1	1	1	2	4	8
166-0473EDU	**Colored 1.5 ml Microcentrifuge Tubes**, 6 colors, 600	1	1	1	1	2	4	7
166-0479EDU	**Jellyfish Foam Floating Racks****, 8 racks, 12 microcentrifuge tube wells	1	1-2	1-4	1-8	1-16	1-32	1-64
166-0500EDU	**Long-Wave UV Lamp****, 1 (or 166-0530EDU Long-Wave UV Pen Light)	1-8	1-16	1-32	1-64	1-128	1-256	1-512

* pGLO reagents are also available in a convenient pGLO Transformation Kit Refill Package, which may be a preferable and more economic option.
166-0555EDU pGLO Transformation Kit Refill Package, sufficient for 8 workstations; includes pGLO plasmid, *E. coli* strain HB101 K-12, LB broth, transformation solution, ampicillin, arabinose

** Component is reusable, the number required will vary depending on the number of concurrent workstations.

Each complete kit supports 32 students.



Ordering Information

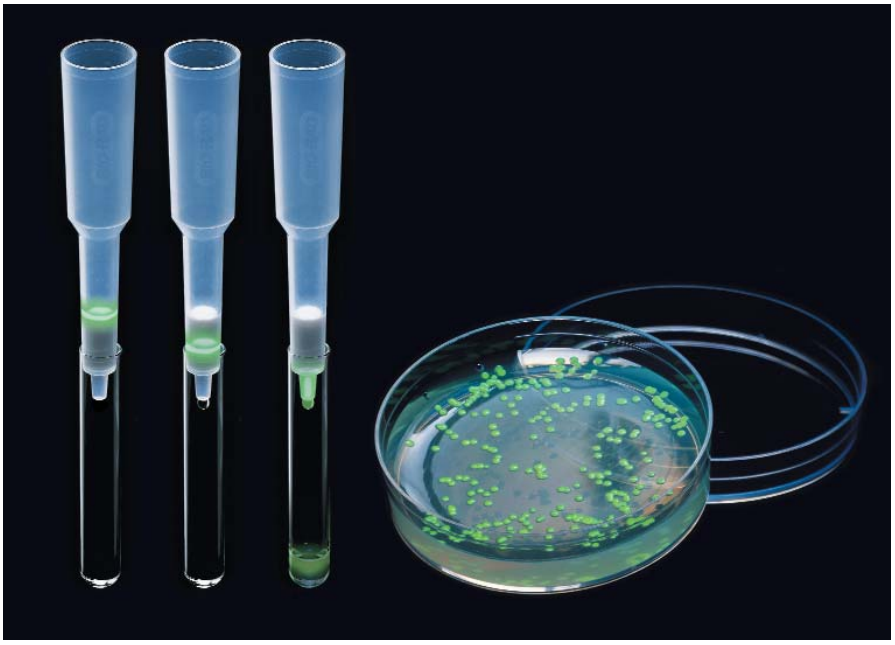
		Number of workstations						
		8	16	32	64	128	256	512
		Equivalent number of kits						
Catalog Number	*Description*	1	2	4	8	16	32	64
166-0015EDU	**GFP Chromatography Lyophilized Components Refill Package*** includes ampicillin, arabinose, LB broth capsule (1 cap), lysozyme	1	2	4	8	16	32	64
166-0016EDU	**Chromatography Buffers Refill Package**, includes binding buffer, column equilibration buffer, column wash buffer, elution buffer	1	2	4	8	16	32	64
166-0413EDU	**HIC Chromatography Columns and Caps**, 8	1	2	4	8	16	32	64
166-0471EDU	**Inoculation Loops**, 10 µl, sterile, 80	1	1	2	4	8	16	32
166-0474EDU	**Disposable Plastic Transfer Pipets**, sterile, 500	1	1	1	1	2	4	8
223-9430EDU	**EZ Micro Test Tubes**, 2 ml, natural, 500	1	1	1	1	1	2	4
166-0476EDU	**Cell Culture Tubes**, 17 x 100 mm, 14 ml, sterile, 25	1	2	3	6	11	21	41
223-9750EDU	**Clear Polystyrene Tubes****, 13 x 100 mm, 9 ml, 1,000	1	1	1	1	1	1	2
166-0479EDU	**Jellyfish Foam Floating Racks*****, 8 racks, 12 microcentrifuge tube wells	1	1–2	1–4	1–8	1–16	1–32	1–64
166-0500EDU	**Long-Wave UV Lamp*****, 1	1–8	1–16	1–32	1–64	1–128	1–256	1–512

* Some microbial culturing reagents are also available as individual components.
166-0406EDU Arabinose, 600 mg, lyophilized
166-0407EDU Ampicillin, 30 mg, lyophilized

** Clear polystyrene tubes are larger than provided in the Green Fluoresecent Protein Chromatography kit, but they are still usable with the HIC chromatography columns.

*** Component is reusable, the number required will vary depending on the number of concurrent workstations.

Each complete kit supports 32 students.



Ordering Information

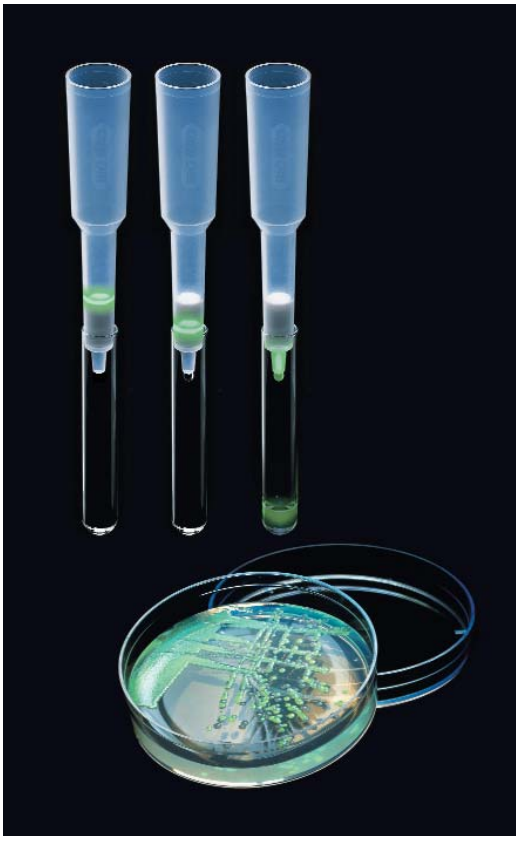
Catalog Number	Description	Number of workstations: 8	16	32	64	128	256	512
		Equivalent number of kits: 1	2	4	8	16	32	64
166-0015EDU	**GFP Chromatography Lyophilized Components Refill Package*** includes ampicillin, arabinose, LB broth capsule (1 cap), lysozyme	1	2	4	8	16	32	64
166-0016EDU	**Chromatography Buffers Refill Package**, includes binding buffer, column equilibration buffer, column wash buffer, elution buffer	1	2	4	8	16	32	64
166-0411EDU	**Bacterial Library**, lyophilized	1	2	4	8	16	32	64
166-0600EDU	**LB Nutrient Agar Powder**, 20 g, makes forty 60 mm agar plates	1	1	2	3	5	9	0
166-0472EDU	**LB Nutrient Agar Powder**, 500 g, makes one thousand 60 mm agar plates	—	—	—	—	—	—	1
166-0413EDU	**HIC Chromatography Columns and Caps**, 8	1	2	4	8	16	32	64
166-0470EDU	**Petri Dishes**, 60 mm, sterile, 500	1	1	1	1	1	2	3
166-0471EDU	**Inoculation Loops**, 10 µl, sterile, 80	1	1	2	4	8	16	32
166-0474EDU	**Disposable Plastic Transfer Pipets**, sterile, 500	1	1	1	1	2	4	8
223-9430EDU	**EZ Micro Test Tubes**, 2 ml, natural, 500	1	1	1	1	1	2	4
166-0476EDU	**Cell Culture Tubes**, 17 x 100 mm, 14 ml, sterile, 25	1	2	3	6	11	21	41
223-9750EDU	**Clear Polystyrene Tubes****, 13 x 100 mm, 9 ml, 1,000	1	1	1	1	1	1	2
166-0479EDU	**Jellyfish Foam Floating Racks*****, 8 racks, 12 microcentrifuge tube wells	1	1–2	1–4	1–8	1–16	1–32	1–64
166-0500EDU	**Long-Wave UV Lamp*****, 1	1–8	1–16	1–32	1–64	1–128	1–256	1–512

* Some microbial culturing reagents are also available as individual components.
166-0406EDU Arabinose, 600 mg, lyophilized
166-0407EDU Ampicillin, 30 mg, lyophilized

** Clear polystyrene tubes are larger than provided in the Green Fluoresecent Protein Chromatography kit, but they are still usable with the HIC chromatography columns.

*** Component is reusable, the number required will vary depending on the number of concurrent workstations.

Each complete kit supports 32 students.



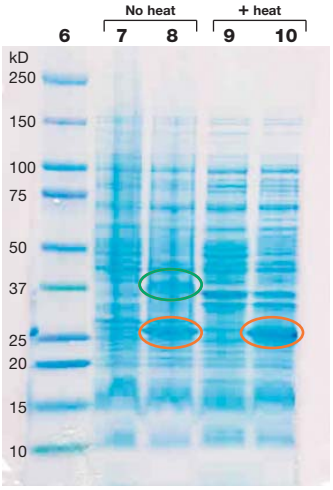
Ordering Information

		Number of workstations						
		8	16	32	64	128	256	512
		Equivalent number of kits						
Catalog Number	*Description*	1	2	4	8	16	32	64
166-0003EDU	**pGLO Bacterial Transformation Kit***	1	2	4	8	16	32	64
161-1105EDU	**Ready Gel® Tris-HCl gel**, 4-20%,10-well, 30 µl	8	16	32	64	128	256	512
161-0737EDU	**Laemmli Sample Buffer**, 30 ml	1	1	2	4	8	16	32
161-0732EDU	**10x Tris Glycine/SDS**, 1 L	1	2	4	—	—	—	—
161-0772EDU	**10x Tris Glycine/SDS**, 5 L	—	—	—	1	4	7	13
161-0610EDU	**Dithiothreitol** (DTT), 1 g	1	1	2	—	—	—	—
161-0611EDU	**Dithiothreitol** (DTT), 5 g	—	—	—	1	2	3	5
161-0375EDU	**Precision Plus Protein™ Kaleidoscope™ Standards**, 500 µl	1	1	1	2	4	7	13
161-0786EDU	**Bio-Safe™ Coomassie Stain**, for proteins, 1 L	1	1	1	1	2	4	—
161-0787EDU	**Bio-Safe Coomassie Stain**, for proteins, 5 L	—	—	—	—	—	—	2
223-9917EDU	**Prot/Elec Tips**, for gel loading, 1,000 tips	1	1	1	1	1	2	4
224-0100EDU	**1.5 ml Conical Tubes**, with separate O-ring screw caps, unsterilized, 500	1	1	1	1	2	4	7
166-0477EDU	**Gel Staining Trays****, 4	1	1-2	1-4	1-8	1-16	1-32	1-64

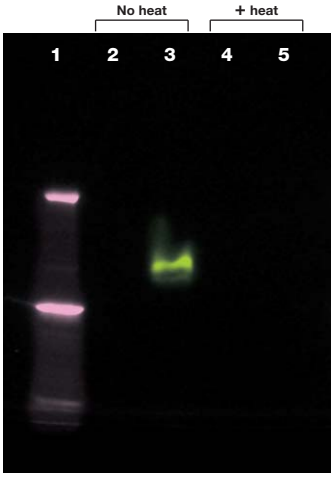
* The pGLO Kit SDS-PAGE Extension requires the pGLO Bacterial Transformation kit in addition to the pGLO Kit SDS-PAGE Extension. Refer to the guide for the pGLO Bacterial Transformation Kit.

** Component is reusable, the number required will vary depending on the number of concurrent workstations.

Each complete kit supports 32 students.



Coomassie stained gel showing uninduced/induced, and heat treated protein patterns. Lane 6, Precision Plus Protein Kaleidoscope standards; lane 7, uninduced white; lane 8, induced green; lane 9, uninduced white + heat; lane 10, induced green + heat. In the unheated, green samples (lane 8), two electrophoretic variants of GFP can be seen. A completely denatured, ~27 kD band, and a partially denatured, ~37 kD band (fluorescent form). In the heated samples, the entire protein population is denatured, and GFP runs as a single, ~27 kD band. The GFP bands are circled, with the fluorescent form circled in green.



The fluorescent pattern seen on unstained SDS-PAGE gels. In lane 1, the two pink bands (25 and 75 kD) from the Precision Plus Protein Kaleidoscope standard fluoresce under UV light, as does the GFP band in lane 3.

Ordering Information

		Number of workstations						
		8	16	32	64	128	256	512
		Equivalent number of kits						
Catalog Number	*Description*	1	2	4	8	16	32	64
166-5021EDU	**Microbial Culture Kit Reagents*** includes ampicillin, LB broth capsules (12 caps), LB nutrient agar powder, 20 g, *E.coli* strain HB101 K-12	1	2	4	8	16	32	64
166-0470EDU	**Petri Dishes**, 60 mm, sterile, 500	1	1	1	1	2	3	6
166-0471EDU	**Inoculation Loops**, 10 µl, sterile, 80	1	2	4	8	16	32	64
166-0474EDU	**Disposable Plastic Transfer Pipets**, sterile, 500	1	1	1	1	1	1	2
166-0476EDU	**Cell Culture Tubes**, 17 x 100 mm, 14 ml, sterile, 25	3	6	12	24	48	96	192

* Some microbial culturing reagents are also available as individual components.

166-0407EDU Ampicillin, 30 mg, lyophilized
166-0408EDU *E.coli* Strain HB101 K-12, lyophilized
166-0600EDU LB Nutrient Agar Powder, 20 g, makes forty 60 mm agar plates
166-0472EDU LB Nutrient Agar Powder, 500 g, makes one thousand 60 mm agar plates

Each complete kit supports 32 students.

Bacterial colonies cultured from yogurt (above).
Streptococcus thermophilus (inset).

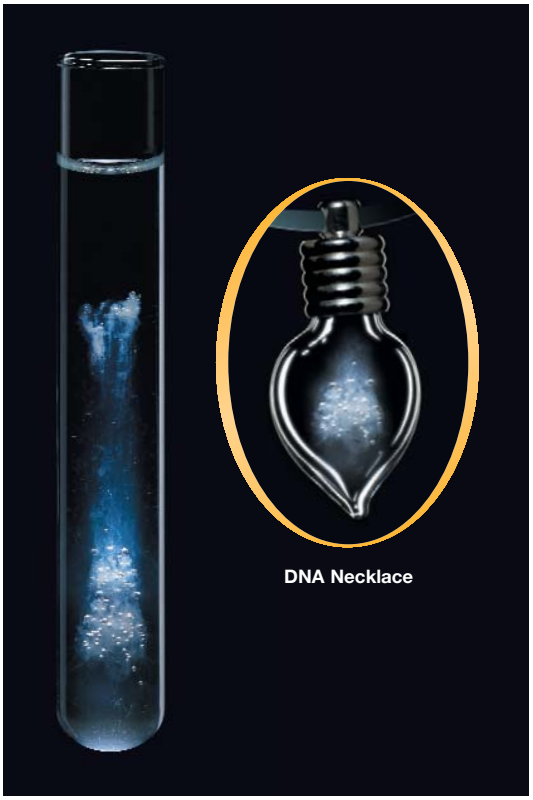
Ordering Information

Catalog Number	Description	Number of workstations: 8	16	32	64	128	256	512
		Equivalent number of kits: 1	2	4	8	16	32	64
166-2001EDU	**Genes in a Bottle DNA Extraction Refill Package*** includes lysis buffer and powdered protease plus salt	1	2	4	8	16	32	64
166-2200EDU	**DNA Necklace Module**, 18 necklaces	2	4	8	16	32	64	128
166-0480EDU	**Disposable Plastic Transfer Pipets**, nonsterile, 500	1	1	1	1	2	4	8
223-9430EDU	**EZ Micro Test Tubes**, 2 ml, natural, 500	1	1	1	1	2	3	6
166-0475EDU	**Conical Centrifuge Tubes**, 15 ml, 50	1	2	4	8	16	32	64
166-2004EDU	**I Love Your DNA Tattoos**, 200 temporary tattoos	1	1	1	2	3	6	12

* Genes in a Bottle reagents are also available in a DNA extraction module, which may be a preferable and economic option.
166-2000EDU DNA Extraction Module, sufficient for 9 workstations, includes lysis buffer, powdered protease + salt, 15 ml conical tubes, clear micro test tubes, multicolor micro test tubes, disposable plastic transfer pipets, foam micro test tube holders, and curriculum

Lysis Buffer is also available as an individual component.
166-2002EDU Lysis Buffer, 150 ml

Each complete kit supports 36 students.

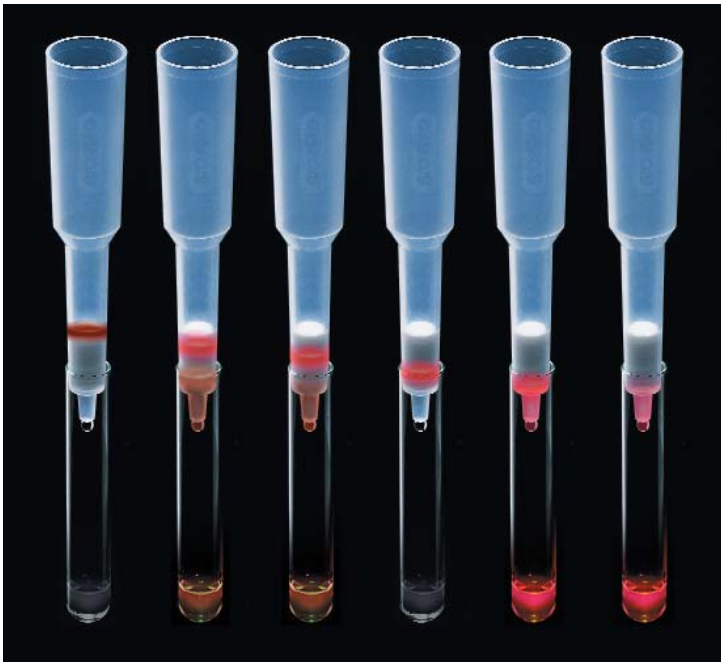


Ordering Information

		Number of workstations						
		8	16	32	64	128	256	512
		Equivalent number of kits						
Catalog Number	*Description*	1	2	4	8	16	32	64
166-0018EDU	**Sample Mixture and Column Chromatography Buffer**	1	2	4	8	16	32	64
166-0020EDU	**Size Exclusion Columns with Caps**	1	2	4	8	16	32	64
166-0480EDU	**Disposable Plastic Transfer Pipets**, nonsterile, 500	1	1	1	1	1	1	2
223-9750EDU	**Clear Polystyrene Tubes***, 13 x 100 mm, 9 ml, 1,000	1	1	1	1	2	4	7

* Clear polystyrene tubes are larger than those provided in the Size Exclusion Chromatography kit, but they are usable with the size exclusion columns.

Each complete kit supports 32 students.



Ordering Information

		Number of workstations						
		10	20	40	80	160	320	640
		Equivalent number of kits						
Catalog Number	*Description*	1	1	1	1	2	4	8
166-2403EDU	**10x PBS**, 100 ml	1	1	1	1	1	1	1
500-0204EDU	**Quick Start™ Bradford Protein Assay Kit** includes 1x dye reagent (1 L), bovine gamma-globulin standard set (2 sets of 7 standards, 0.125-2 mg/ml, 2 ml)	1	1	1	1	2	4	8
223-9955EDU	**1.5 ml Standard Disposable Polystyrene Cuvettes**, 100	1	1	1	1	2	4	8

Each complete kit supports 320 students.

Ordering Information

		Number of workstations						
		12	24	48	96	192	384	768
		Equivalent number of kits						
Catalog Number	*Description*	1	2	4	8	16	32	64
166-2406EDU	**Antigen*** (chicken gamma globulin), lyophilized	1	2	4	8	16	32	64
166-2407EDU	**Primary antibody*** (rabbit anti-chicken polyclonal antibody), lyophilized	1	2	4	8	16	32	64
166-2408EDU	**Secondary antibody*** (goat anti-rabbit antibody conjugated to horseradish peroxidase (HRP)), lyophilized	1	2	4	8	16	32	64
166-2402EDU	**HRP Enzyme Substrate*** (TMB), 25 ml	1	2	4	8	16	32	64
166-2403EDU	**10x PBS***, 100 ml	1	2	—	—	—	—	—
166-0780EDU	**10x PBS***, 1 L	—	—	1	1	2	4	7
166-2404EDU	**10% Tween 20***, 5 ml	1	—	—	—	—	—	—
161-0781EDU	**10% Tween 20***, 1 L	—	1	1	1	1	1	1
166-2405EDU	**Microplates with 12 well strips**, 3 plates	1	2	4	8	16	32	64
166-0480EDU	**Disposable Plastic Transfer Pipets**, nonsterile, 500	1	1	1	2	3	5	10
166-0473EDU	**Colored 1.5 ml Microcentrifuge Tubes**, 6 colors, 600	1	1	1	1	2	4	7
223-9430EDU	**EZ Micro Test Tubes**, 2 ml, natural, 500	1	1	1	2	3	5	10

* ELISA reagents are also available in a convenient ELISA Kit Reagent Refill Package, which may be a preferable and more economic option.
166-2401EDU ELISA Kit Reagent Refill Package, sufficient for 12 workstations, includes antigen, primary antibody, secondary antibody, 10% Tween 20, 10x PBS, HRP enzyme substrate

Each complete kit supports 48 students.

Ordering Information

Catalog Number	Description	Number of workstations: 8	16	32	64	128	256	512
		Equivalent number of kits: 1	2	4	8	16	32	64
161-1103EDU	**Ready Gel Tris-HCl Gel***, 15%,10-well, 30 µl	8	16	32	64	128	256	512
161-0375EDU	**Precision Plus Protein Kaleidoscope Standards****, 500 µl	1	1	1	1	2	4	7
166-0010EDU	**Actin and Myosin Standard****, lyophilized	1	2	3	5	9	17	33
161-0610EDU	**Dithiothreitol (DTT)****, 1 g	1	1	2	—	—	—	—
161-0611EDU	**Dithiothreitol (DTT)****, 5 g	—	—	—	1	2	3	5
161-0737EDU	**Laemmli Sample Buffer**, 30 ml	1	1	2	4	8	16	32
161-0732EDU	**10x Tris Glycine/SDS**, 1 L	1	2	4	—	—	—	—
161-0772EDU	**10x Tris Glycine/SDS**, 5 L	—	—	—	2	4	7	13
161-0786EDU	**Bio-Safe Coomassie Stain**, for proteins, 1 L	1	1	1	2	4	—	—
161-0787EDU	**Bio-Safe Coomassie Stain**, for proteins, 5 L	—	—	—	—	—	2	3
223-9917EDU	**Prot/Elec Tips, for gel loading**, 1,000 tips	1	1	1	1	1	2	4
166-0480EDU	**Disposable Plastic Transfer Pipets**, nonsterile, 500	1	1	1	1	1	2	4
223-9480EDU	**EZ Micro Test Tubes**, 1.5 ml, natural, 500	1	1	1	1	2	4	8
224-0100EDU	**Conical Tubes**, 1.5 ml, with separate O-ring screwcaps, unsterilized, 500	1	1	1	1	2	4	7
166-0479EDU	**Jellyfish Foam Floating Racks*****, 8 racks, 12 microcentrifuge tube wells	1	1–2	1–4	1–8	1–16	1–32	1–64
166-0477EDU	**Gel Staining Trays*****, 4	1	1–2	1–4	1–8	1–16	1–32	1–64

* Ready Gel precast Tris-HCl polyacrylamide gels have a shelf life of 3 months from date of manufacture and are purchased separately from the kit. Handcast low-melt agarose gels are an alternative to precast polyacrylamide gels for this laboratory and may be a preferable option.

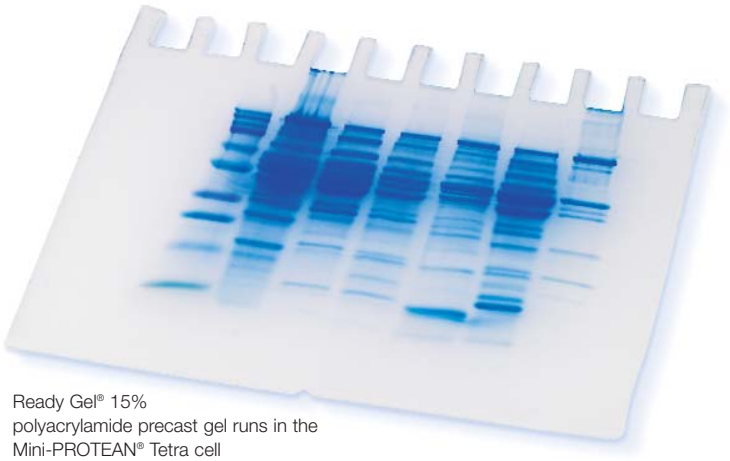
161-3113EDU	Certified PCR Low-Melt Agarose, 25 g	1	1	2	4	—	—	—
161-3114EDU	Certified PCR Low-Melt Agarose, 125 g	—	—	—	—	2	4	—
161-3115EDU	Certified PCR Low-Melt Agarose, 500 g	—	—	—	—	—	—	2

** Comparative Proteomics Kit I: Protein Profiler reagents are also available in a convenient Protein Profiler temperature-sensitive reagents bag, which may be a preferable and more economic option.

166-2701EDU Protein Profiler temperature-sensitive reagents bag, sufficient for 8 workstations, includes Precision Plus Protein Kaleidoscope prestained standards, actin and myosin standard, DTT

*** Component is reusable, the number required will vary depending on the number of concurrent workstations.

Each complete kit supports 32 students.



Ready Gel® 15% polyacrylamide precast gel runs in the Mini-PROTEAN® Tetra cell

Ordering Information

Catalog Number	Description	Number of workstations						
		8	16	32	64	128	256	512
		Equivalent number of kits						
		1	2	4	8	16	32	64
166-2801EDU	**Western Blot Temperature Sensitive Reagents Bag*** includes primary antibody, secondary antibody, HRP color detection reagents A and B	1	2	4	8	16	32	64
166-2700EDU	**Comparative Proteomics Kit I: Protein Profiler Module****	1	2	4	8	16	32	64
166-2403EDU	**10x PBS**, 100 ml	2	—	—	—	—	—	—
166-0780EDU	**10x PBS**, 1 L	—	1	1	2	4	7	14
166-2404EDU	**10% Tween 20**, 5 ml	1	—	—	—	—	—	—
161-0781EDU	**10% Tween 20**, 1 L	—	1	1	1	1	1	1
161-0734EDU	**10x Tris/Glycine**, 1 L	1	2	4	—	—	—	—
161-0771EDU	**10x Tris/Glycine**, 5 L	—	—	—	2	4	7	13
170-6404EDU	**Blotting Grade Blocker**, nonfat dry milk, 300 g	1	1	1	1	2	3	5
166-2807EDU	**Nitrocellulose 0.45 µM**, 8 sheets, Blotting Paper, 16 sheets	1	2	4	8	16	32	64
166-0476EDU	**Cell Culture Tubes**, 17 x 100 mm, 14 ml, sterile, 25	1	2	4	8	16	32	64
166-0477EDU	**Gel Staining Trays*****, 4	1	1–2	1–4	1–8	1–16	1–32	1–64

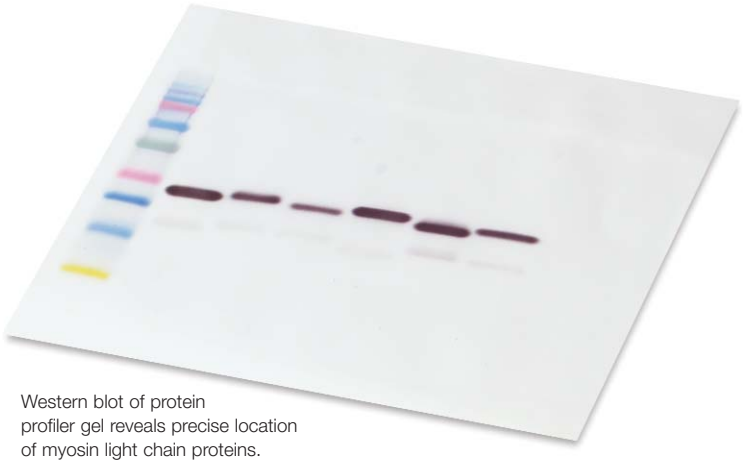
* Some western blotting reagents are also available as individual components.

166-2804EDU	Primary Antibody (anti-myosin light chain antibody), 200 ug, lyophilized, sufficient for 8 workstations
172-1011EDU	Secondary Antibody (goat anti-mouse HRP), 2 ml, frozen, sufficient for 160 workstations at 1:1,000 dilution
170-6431EDU	Horseradish Peroxidase (HRP) Conjugate Substrate Kit, sufficient for 145 workstations, contains premixed 4CN, hydrogen peroxide solutions, color development buffer; makes 2 L color development solution
162-0145EDU	0.45 µm Nitrocellulose, 7 x 8.4 cm, 10 sheets
162-0214EDU	0.45 µm Nitrocellulose/Filter Paper Sandwich, 7 x 8.5 cm, 20 pk
170-3932EDU	Thick Blot Paper, 50 sheets, 7.5 x 10 cm

** The Comparative Proteomics Kit series requires the Protein Profiler module in addition to the Western Blot module. Refer to the guide for the Comparative Proteomics Kit I: Protein Profiler Module.

*** Component is reusable, the number required will vary depending on the number of concurrent workstations.

Each complete kit supports 32 students.



Western blot of protein profiler gel reveals precise location of myosin light chain proteins.

Ordering Information

		Number of workstations						
		8	16	32	64	128	256	512
		Equivalent number of kits						
Catalog Number	*Description*	1	2	4	8	16	32	64
166-2601EDU	**Crime Scene Investigator PCR Basics Refill Pack** includes PCR master mix, primers, allele ladder, orange G loading dye, crime scene and suspect DNA samples	1	2	4	8	16	32	64
166-0742EDU	**50x TAE***, 100 ml	1	2	—	—	—	—	—
161-0743EDU	**50x TAE***, 1 L	—	—	1	1	2	—	—
161-0773EDU	**50x TAE***, 5 L cube	—	—	—	—	—	1	2
161-3100EDU	**Certified Molecular Biology Agarose***, 25 g	1	2	—	—	—	—	—
161-3101EDU	**Certified Molecular Biology Agarose***, 125 g	—	—	1	2	—	—	—
161-3102EDU	**Certified Molecular Biology Agarose***, 500 g	—	—	—	—	1	2	2
166-0420EDU	**Fast Blast DNA Stain**, 500x, 100 ml	1	1	1	1	1	2	3
170-8880EDU	**iQ™ SYBR® Green Supermix**, 5 ml	1	1	1	2	4	8	16
163-2091EDU	**Sterile Water**, 500 ml	1	1	1	1	1	1	1
166-0473EDU	**Colored 1.5 ml Microcentrifuge Tubes**, 6 colors, 600	1	1	1	2	3	6	12
TLS-0851EDU	**PCR Tube Strips**	1	1	1	1	2	4	7
TCS-0803EDU	**PCR Optical Flat Cap Strips**	1	1	1	1	2	4	7
TRC-0501EDU	**96-Place PCR Tube Rack and Cover****, 5	2	2–4	2–7	2–13	2–26	2–52	2–103
166-0477EDU	**Gel Staining Trays****, 4	1	1–2	1–4	1–8	1–16	1–32	1–64

* Electrophoresis reagents are also available in convenient Fast Blast Electrophoresis Reagent Packs, these may be preferable and more economic options.
Note: The information provided for the packs assumes some reuse of TAE electrophoresis buffer. See bulletin 5891 for details on reuse of TAE buffer.

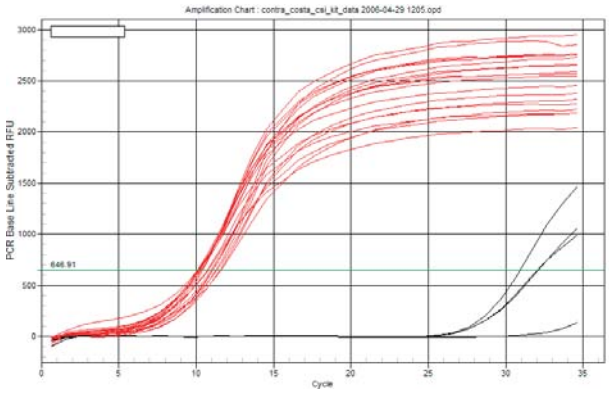
166-0450EDU Small Fast Blast DNA Electrophoresis Reagent Pack, makes 48 1% or 16 3% 7 x 10 cm agarose gels; includes 25 g agarose powder, 100 ml 500x Fast Blast DNA stain, 100 ml 50x TAE electrophoresis buffer

166-0455EDU Medium Fast Blast DNA Electrophoresis Reagent Pack, makes 270 1% or 90 3% 7 x 10 cm agarose gels; includes 125 g agarose powder, 100 ml 500x Fast Blast DNA stain, 1 L 50x TAE electrophoresis buffer

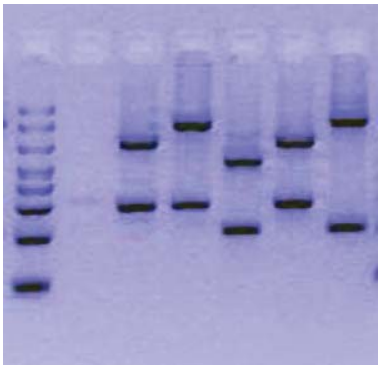
166-0460EDU Large Fast Blast DNA Electrophoresis Reagent Pack, makes 1,080 1% or 360 3% 7 x 10 cm agarose gels; includes 500 g agarose powder, 2 x 100 ml 500x Fast Blast DNA stain, 5 L 50x TAE electrophoresis buffer

** Component is reusable, the number required will vary depending on the number of concurrent workstations.

Each complete kit supports 32 students.



PCR Amplification plot. Color key: red = CSI kit reactions, black = no template control.



Real-time PCR products separated on a 3% agarose gel. Lanes from left to right: allele ladder, NTC, CS, Suspects A, B, C, and D.

Ordering Information

Catalog Number	Description	Number of workstations: 6	12	24	48	96	192	384
		Equivalent number of kits: 1	2	4	8	16	32	64
166-2501EDU	**GMO Investigator™ Kit Reagent Refill Pack** includes PCR master mix, GMO primers, plant PSII primers, GMO positive control DNA, PCR molecular weight ruler, orange G loading dye	1	2	4	8	16	32	64
732-6030EDU	**InstaGene Matrix**, 20 ml	1	1	2	3	5	10	20
166-0742EDU	**50x TAE***, 100 ml	1	2	—	—	—	—	—
161-0743EDU	**50x TAE***, 1 L	—	—	1	1	1	3	—
161-0773EDU	**50x TAE***, 5 L cube	—	—	—	—	—	—	1
161-3100EDU	**Certified Molecular Biology Agarose***, 25 g	1	2	3	—	—	—	—
161-3101EDU	**Certified Molecular Biology Agarose***, 125 g	—	—	—	2	3	—	—
161-3102EDU	**Certified Molecular Biology Agarose***, 500 g	—	—	—	—	—	1	2
166-0420EDU	**Fast Blast DNA Stain**, 500x, 100 ml	1	1	1	1	1	1	2
170-8880EDU	**iQ™ SYBR® Green Supermix**, 5 ml	1	1	2	3	5	9	18
163-2091EDU	**Sterile Water**, 500 ml	1	1	1	1	1	1	1
166-0473EDU	**Colored 1.5 ml Microcentrifuge Tubes**, 6 colors, 600	1	1	1	1	1	1	2
224-0110EDU	**1.5 ml Conical Tubes**, with installed O-ring screw caps, sterile, 500	1	1	1	2	4	7	13
TLS-0851EDU	**PCR Tube Strips**	1	1	1	1	2	4	7
TCS-0803EDU	**PCR Optical Flat Cap Strips**	1	1	1	1	2	4	7
TRC-0501EDU	**96-Place PCR Tube Rack and Cover****, 5	2	2–3	2–5	2–10	2–20	2–39	2–77
166-0477EDU	**Gel Staining Trays****, 4	1	1–2	1–3	1–6	1–12	1–24	1–48

* Electrophoresis reagents are also available in convenient Fast Blast Electrophoresis Reagent Packs, these may be preferable and more economic options.
Note: The information provided for the packs assumes some reuse of TAE electrophoresis buffer. See bulletin 5891 for details on reuse of TAE buffer.

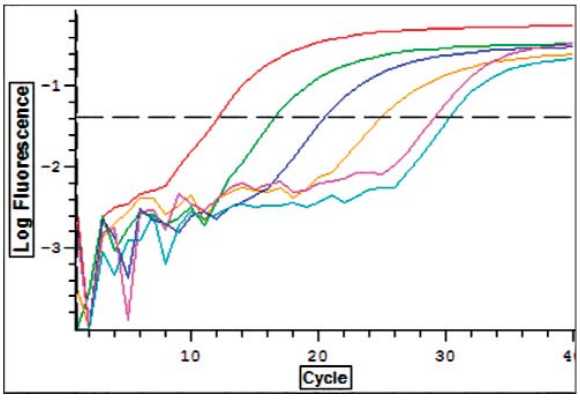
166-0450EDU Small Fast Blast DNA Electrophoresis Reagent Pack, makes 48 1% or 16 3% 7 x 10 cm agarose gels; includes 25 g agarose powder, 100 ml 500x Fast Blast DNA stain, 100 ml 50x TAE electrophoresis buffer

166-0455EDU Medium Fast Blast DNA Electrophoresis Reagent Pack, makes 270 1% or 90 3% 7 x 10 cm agarose gels; includes 125 g agarose powder, 100 ml 500x Fast Blast DNA stain, 1 L 50x TAE electrophoresis buffer

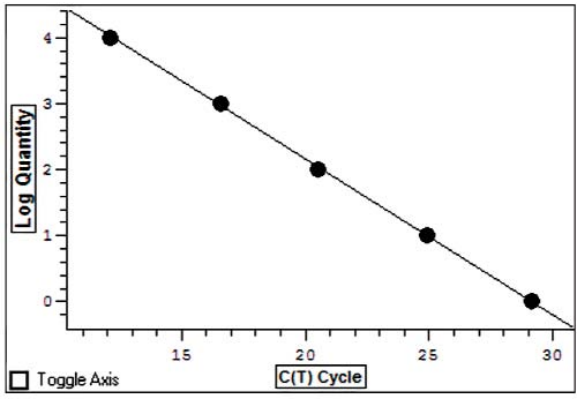
166-0460EDU Large Fast Blast DNA Electrophoresis Reagent Pack, makes 1,080 1% or 360 3% 7 x 10 cm agarose gels; includes 500 g agarose powder, 2 x 100 ml 500x Fast Blast DNA stain, 5 L 50x TAE electrophoresis buffer

** Component is reusable, the number required will vary depending on the number of concurrent workstations.

Each complete kit supports 32 students.



PCR amplification plot. Color key: red = 10x, green = 100x, blue = 1000x, yellow = 10,000x, pink = 100,000x, and cyan = 1,000,000x. 1x and NTC are not shown on this plot. Note that fluorescence units are shown in log view.



Standard curve. C_T values for the standards are on the x-axis, and the corresponding quantity of starting template DNA for each standard is on the y-axis. A well-optimized assay will have a standard curve similar to this, in which the points all fall close on a straight line. The spacing of the points is controlled by the dilution series used.

Ordering Information

Catalog Number	Description	Number of workstations: 12	24	48	96	192	384	768
		Equivalent number of series: 1	2	4	8	16	32	64
166-5005EDU	**Nucleic Acid Extraction Module*** includes lysis buffer, dithiothreitol (DTT), wash buffer, sterile water, micropestles, spin columns, micro test tubes, 1.5 ml, micro test tubes, 2.0 ml, colored micro test tubes, 2.0 ml	1	2	4	8	16	32	64
166-5011EDU	**GAPDH PCR Reagent Refill Pack** includes initial *GAPDH* PCR primers, nested *GAPDH* PCR primers, PCR master mix, plasmid control DNA, control *Arabidopsis* genomic DNA, exonuclease, molecular weight ruler, orange G loading dye, sterile water, PCR tubes, capless PCR tube adaptors, colored micro test tubes, 2.0 ml, Foam micro test tube holders	1	2	4	8	16	32	64
732-6300EDU	**PCR Kleen™ Spin Purification Module** includes PCR Kleen Spin columns, micro test tubes, 2.0 ml, micro test tubes, 1.5 ml	1	1	2	4	8	16	32
166-5016EDU	**Ligation Module Reagents Refill** includes T4 DNA ligase, ligase buffer, Proofreading DNA polymerase, cloning vector, sterile water	1	2	4	8	16	32	64
166-5017EDU	**Transformation Module Reagent Refill** includes transformation A solution, transformation B solution, C-growth medium, IPTG	1	2	4	8	16	32	64
166-5018EDU	**Bgl II Reagent Refill** includes BglII restriction enzyme, restriction enzyme buffer	1	2	4	8	16	32	64
166-5021EDU	**Microbial Culturing Reagents***, includes ampicillin, LB broth capsules (13 caps), LB nutrient agar powder, 20 g, *E.coli* strain HB101 K-12	1	2	4	8	16	32	64
732-6400EDU	**Aurum™ Plasmid Mini Purification Module**, includes DNA-binding mini columns, capless collection tubes, resuspension solution, lysis solution, neutralization, 5x wash solution, elution solution	1	1	2	4	8	16	32
166-5025EDU	**Sequencing and Bioinformatics Module*** includes pJETF primer, pJETR primer, GAPSEQF primer, GAPSEQR primer, control plasmid, barcoded 96-well plate, sealing film, colored micro test tubes, 2 ml	1	2	4	8	16	32	64
166-0742EDU	**50x TAE****, 100 ml	2	1	—	—	—	—	—
161-0743EDU	**50x TAE****, 1 L	—	—	2	—	—	—	—
161-0773EDU	**50x TAE****, 5 L cube	—	—	—	1	2	4	7
161-3100EDU	**Certified Molecular Biology Agarose****, 25 g	1	2	—	—	—	—	—
161-3101EDU	**Certified Molecular Biology Agarose****, 125 g	—	—	1	2	3	—	—
161-3102EDU	**Certified Molecular Biology Agarose****, 500 g	—	—	—	—	—	1	2
161-0433EDU	**Ethidium Bromide Solution****, 10 mg/ml, 10 ml	1	1	1	1	1	1	1
166-0473EDU	**Colored 1.5 ml Microcentrifuge Tubes**, 6 colors, 600	1	1	2	4	7	13	26
223-9480EDU	**EZ Micro Test Tubes**, 1.5 ml, natural, 500	1	2	3	6	12	24	47
TWI-0201EDU	**0.2 ml Tubes with Domed Caps**, natural, 1,000	1	1	1	1	2	4	8
223-9500EDU	**PCR Tube Capless Adapters*****, 500	1	1	1	2	4	8	16
166-0470EDU	**Petri Dishes**, 60 mm, sterile, 500	1	1	1	1	2	3	6
166-0471EDU	**Inoculation Loops**, 10 µl, sterile, 80	1	2	4	8	16	32	64
166-0474EDU	**Disposable Plastic Transfer Pipets**, sterile, 500	1	1	1	1	1	1	2
166-0476EDU	**Cell Culture Tubes**, 17 x 100 mm, 14 ml, sterile, 25	3	6	12	24	48	96	192
TRC-0501EDU	**96-Place PCR Tube Rack and Cover***†**, 5	3	3–5	3–10	3–20	3–39	3–77	3–153
166-0479EDU	**Jellyfish Foam Floating Racks†**, 8 racks, 12 microcentrifuge tube wells	2	2–3	2–6	2–12	2–24	2–48	2–96
166-0477EDU	**Gel Staining Trays†**, 4	2	2–3	2–6	2–12	2–24	2–48	2–96
166-5001EDU	**Curriculum Resource CD†**, includes curriculum manual, overview webinar presentation, and master planning guide	1	1	1	1	1	1	1
166-5002EDU	**Full-Color Printed Cloning and Sequencing Explorer Series Curriculum Manual†**	1–12	1–24	1–48	1–96	1–192	1–384	1–768

* Some components of the Cloning and Sequencing Explorer Series are available individually.
- 166-5006EDU Nucleic Acid Extraction Refill Kit, sufficient for 12 workstations includes DTT, lysis buffer, wash buffer, sterile water
- 732-6826EDU Nucleic Acid Extraction Module Mini Columns, 50
- 166-0407EDU Ampicillin, 30 mg, lyophilized
- 166-0408EDU E.coli Strain HB101 K-12, lyophilized, 1
- 166-0600EDU LB Nutrient Agar Powder, 20 g, makes forty 60 mm agar plates
- 166-0472EDU LB Nutrient Agar Powder, 500 g, makes one thousand 60 mm agar plates
- 166-5026EDU Sequencing Kit Refill Pack, sufficient for 12 workstations includes pJETF primer, pJETR primer, GAPSEQF primer, GAPSEQR primer, control plasmid

** Electrophoresis reagents are also available in convenient Ethidium Bromide Electrophoresis Reagent Packs, these may be preferable and more economic options.
Note: The information provided for the packs assumes some reuse of TAE electrophoresis buffer. See bulletin 5891 for details on reuse of TAE buffer.
- 166-0451EDU Small Ethidium Bromide DNA Electrophoresis Reagent Pack, makes 48 1% or 16 3% 7 x 10 cm agarose gels; includes 25 g agarose powder, 10 ml ethidium bromide, 200 ml 50x TAE electrophoresis buffer
- 166-0456EDU Medium Ethidium Bromide DNA Electrophoresis Reagent Pack, makes 270 1% or 90 3% 7 x 10 cm agarose gels; includes 125 g agarose powder, 10 ml ethidium bromide, 1 L 50x TAE electrophoresis buffer
- 166-0461EDU Large Ethidium Bromide DNA Electrophoresis Reagent Pack, makes 1,080 1% or 360 3% 7 x 10 cm agarose gels; includes 500 g agarose powder, 10 ml ethidium bromide, 5 L 50x TAE electrophoresis buffer

*** PCR Tube Capless Adaptors are not required if 96-Place PCR Tube Racks are purchased.

† Component is reusable, the number required will vary depending on the number of concurrent workstations.

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