

SEA PHAGES

Ordering Guide

Overview

This ordering guide provides information on vendors and lists all the **supplies, reagents and equipment** you will need to implement the Phage Discovery component of the course (see below). The supply list is tailored for the new SEA schools.

- To facilitate planning and ordering of the supplies necessary, and where appropriate, the *estimated* quantities for each item is included, either as per student or per class.
- Items listed as “optional” are not critical for implementing the course, though many would significantly simplify preparation for and implementation of the course.
- If you are considering substituting items listed in the list, check with the SEA Team for suitability of the substitutes. Some substitutes have been found to negatively impact experiments as described in SEA-PHAGES protocols.

Vendors

We have provided vendor information and catalog numbers for the supplies listed in this document. Note, however, that supplies can be purchased from any vendor of your choice, and that you should take advantage of better pricing on individual items when it is available.

- **Fisher Scientific**

HHMI has negotiated special pricing for supplies that are available from Fisher Scientific. These prices are listed in the “Fisher Scientific Quote” document available at seaphages.org. If you intend to take advantage of these pre-negotiated prices, please use the quote provided at the top of the document. *If the quote # provided does not work, or if your local Fisher representative is unable to apply the negotiated-prices, please contact the Thermo Fisher VAS Team to inform that you are part of the Science Education Alliance program with HHMI and would like to utilize an HHMI quote. Failing that, please contact us info@seaphages.org for assistance.*

Thermo Fisher VAS TEAM

Phone: 866-884-2019 | E-mail: cs.vastatlanta@thermofisher.com

Hours of operation: 7a.m. - 9p.m. eastern

- **New England Biolabs**

If you intend to purchase any reagents from New England Biolabs, remember to ask your local rep if there is an education discount available.

- **Ted Pella**

Electron Microscopy supplies can be purchased from this vendor.

Supplies for in-class Use

Items	# per student	# per classroom	vendor	catalog #
Consumables				
Microcentrifuge tubes (Eppendorf)	100		Fisher	05-402-27
Conical tubes (15mL)	10		Fisher	05 539 12
Conical tubes (50mL)	10		Fisher	06 443 18
Vented conical tubes	optional (3)	optional	Fisher	50-202-015
Micropipet tips, box (p1000)		optional	Fisher	02-717-352
Micropipet tips, box (p20-200)	3		Fisher	02-717-351
Serological pipette (5mL or 10 mL)	50		Fisher	13 678 11D
Syringe (5mL)	10		ColePalmer	07944-02
Syringe filter (0.22um)	10		Fisher	09 927 43A
Sterile wooden sticks or loop		optional	Fisher	23 400 112
Tube top filtration system (requires a vacuum line)	5		Fisher; no HHMI discount	976134
Cryogenic Tubes		1	Fisher	03-337-7Y
Glassware				
Culture tube	40		Fisher	14 961 27
Culture tube caps	40		Fisher	14 957 92
Molecular Biology Supplies				
1kb ladder 50ng/uL, aliquot (100uL)		2	New England Biolabs	N3012S
DNase 1		1	Fisher	ICN10057520
RNase A		1	Fisher	BP25391
HaellI + buffer		2	New England Biolabs	R0108S
MseI + buffer		2	New England Biolabs	R0525S
One other enzyme (bacterial host-dependent)		2	New England Biolabs	--
Wizard DNA Clean-up System		1	Fisher	PR A7280
EM Supplies				
200-400 mesh carbon-formvar coated copper grids	1		Ted Pella	01813
Uranylless		1	Fisher	NC1120874
EM reverse forceps		2	Ted Pella	5377-NM
Pelco tabs	1		Ted Pella	16084-1
Whatman #3 filter paper wedges	2		Fisher	09 924 120
Parafilm (5x5cm)		2	Fisher	13 374 10
Grid storage box		1	Ted Pella	161-96
Small bench equipment				
Rack (13mm)	1		Fisher	14 809 60
Rack (30mm)	1		Fisher	14 809 36
Rack (microcentrifuge tube)	1		Fisher	05 541 25
Bunsen burner (is gas line is available)	0.5		Fisher	17-012823
Mobile Bunsen burner (if no available gas line)	0.5		Fisher	S41872
Butane Can Replacements (if no available gas line)	1		Fisher	S41873
Striker	0.5		Fisher	12 007
Vortexer		optional	Fisher	see Fisher Site
Microcentrifuge	0.25		Fisher	05 400 007
Micropipettor (p20)	1		Fisher	FBE00020
Micropipettor (p200)	1		Fisher	FBE00200
Micropipettor (p1000)		optional	Fisher	see quote
Pipette-aid	1		Fisher	13 683C
Specialty and large equipment (access required)				
Balance		1	Fisher	01 912 407
High speed centrifuge (for 50 ml conical tubes)		optional	Fisher	75 063 839
Shaking incubator (platform & clamps not included)		1	Fisher	14 285 732
Heating block (inserts not included)		2	Fisher	88 860 021
Heating block inserts			Fisher	88 860 113
Water bath		2	Fisher	07 202 155

Reach in incubator		1	Fisher	15-015-2645
Imaging system		1	Fisher	UVP97019801
Nanodrop or other Spectrophotometer		1	Fisher	ND200
Gel Rig and Power Supply		1	Fisher	FB300Q
Gel casting tray/comb (27 lanes)		2	Fisher	OWA6
Electron microscope		access required		

Archiving Supplies

Barcoded tubes (provided by HHMI)	1			
DMSO (200uL)		1	Fisher	BP231 100

Additional Supplies

Labeling pen	1			
Laboratory Notebook	1			
Ruler	0.5			
Timer	0.5			
Computer/laptop		access required		
Latex or vinyl gloves, (S,M,L,XL)		1 each	Fisher	19 005 427
Sealable plastic bag	4			
Microwave		optional		

Reagents / Equipment for Prep

Items	# per student	# per classroom	vendor	catalog #
Chemicals/Media/Reagents				
EDTA, disodium salt		optional	Fisher	BP120 500
Isopropanol		1L	Fisher	A451 1
Ethanol			Fisher	BP2818500
Agarose		25g	Fisher	BMA50001
Dextrose, anhydrous		500g	Fisher	D16 500
Glycerol		500mL	Fisher	AAA16205AP
10X TAE/TBE		1L	Fisher	BMA50844
Tris Base		1kg	Fisher	AC167620010
Calcium chloride		1kg	Fisher	C77 500
Sodium chloride		1kg	Fisher	BP358 1
Sodium Dodecyl Sulfate		10g	Fisher	BP820010
Magnesium Sulfate Anhydrous		500g	Fisher	M65-500
Cycloheximide		1g	Fisher	ICN10018301
Ethidium bromide		1	Fisher	BP1423 500
Agar, bacteriological		250g	Fisher	BP1423 500
Peptone		500g	Fisher	BP1420 500
Yeast extract		500g	Fisher	BP1422-500
CiDecon (disinfectant)		3L	Fisher	04 355 64
Handsoap		1L	Fisher	435516

Glassware/Consumables for Prep

Baffled flasks, 250mL glass		4	Fisher	10-140-6A
Baffled flasks caps, 250mL glass		4	Fisher	14-957-85J
Weight boats, small	optional	1	Fisher	02-202-101
Weight boats, large	optional	1	Fisher	02-202-103
Filtration units, 0.5 L		6	Fisher; no HHMI discount	FB12566504
Petri dishes, case of 500		2	Fisher	FB0875712
Media bottles, 100mL		5	Fisher	FB800100
Media bottles, 250mL		5	Fisher	FB800250
Media bottles, 500mL		5	Fisher	FB800500
Media bottles, 1L		optional	Fisher	FB8001000
Beakers, 250mL		optional	Fisher	02 555 2
Beakers, 500mL		optional	Fisher	02 555 2
Stir bars		optional	Fisher	14 513 61

Equipment for Prep

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Autoclave		access required		
Analytical balance		access required		
4deg C refrigerator		access required	Fisher	20LREETSA
-20deg C freezer		access required	Fisher	05LFEETSA
-80deg C freezer		access required	Fisher	956PM
Stir plates		access required		
Thermometers		optional		