

Appendix A

Equipment and Consumables

Overview

Some additional equipment is needed for proper operation of the Sherlock Microbial Identification System. These items are listed in Table A-1 to aid in setting up and operating the laboratory. Suggested vendors where appropriate are listed.

Several items, such as water baths, test tube racks and inoculating loops may already be in the laboratory. Other items are nonessential, but may be useful by increasing the simplicity and reproducibility of the procedure.

Note: Do not use heating blocks as a substitute for water baths. The heat transfer of water is required to maintain proper temperature control during the procedure.

Before ordering gases, see your local gas supply representative to confirm the CGA tank fitting numbers. Some gas suppliers furnish “instrument” or “chromatographic” purity grades (names vary with supplier) intended for chromatographic use. The purity should be specified when possible. For optimal chromatographic performance, follow the gas purity recommendation.

For consumable ordering information, see table A-2. It is not an exhaustive list. **The media for aerobic bacteria and other items marked with an asterisk (*) have NO SUBSTITUTES.** See Appendix B for details of other media used for other libraries. Suggested vendors where appropriate are listed.

Table A-1 Sherlock Additional Equipment (U.S. sources)

ITEM	SOURCE	PART NUMBER
<u>Sample Preparation</u>		
2ml adjustable volume pipetter (Brinkman #022220004)	Fisher	13-688-130
5ml adjustable volume pipetter (Brinkman #022220101)	Fisher	13-688-131
Inoculating Loop, 4mm	Thomas	7012-F20
Inoculating Loop- Disposable	Fisher	13-075-1
Culture tubes 100x13mm w/Teflon-lined screw caps	Fisher	14-930-10A
Hematology / chemical mixer-rotator	Fisher	14-059-346
Vortex Shaker, Fisher Genie 2	Fisher	12-812
Approved solvent disposal container	Multiple suppliers	
Water baths (one boiling, one at 80°C)		
Test tube racks, stainless steel		
<u>Chromatographic Analysis</u>		
*Hydrogen gas cylinder regulator CGA 305 ¹	Agilent	5183-4642
*Nitrogen gas cylinder regulator CGA 580 ¹	Agilent	5183-4644
*Air gas cylinder regulator CGA 590 ¹	Agilent	5183-4645
Molecular Sieve Trap	Agilent	5060-9084
Merlin Microseal	Agilent	5181-8816
Vial rack	Agilent	9301-0722
<u>Other Standard Laboratory Equipment</u>		
Incubators: one for 28°C and one for 35°C if Blood Agar/ CLIN40 library will be used		

¹ Be sure to contact your gas supplier to make sure the CGA numbers are appropriate for your needs.

Table A-2 Sherlock Consumables Ordering Information

ITEM	SOURCE	PART NUMBER
<u>General Sample Preparation</u>		
Sodium Hydroxide, ACS grade, pellets	Thomas	C715-Q16
Methanol, HPLC grade	Thomas	C490-B86/B84
Hexanes, HPLC grade	Thomas	C389-Q78/Q76
Sodium chloride, ACS grade	Thomas	C710-L89
*Hydrochloric acid 6.00N	Fisher	LC15370-2
Methyl-tert butyl ether (MTBE), HPLC grade	Thomas	C511B14/B16
Culture tubes, 100x13mm	Thomas	9215-D32
PTFE-lined culture tube screw caps	Thomas	9210-T18
GC autosampler vials, 2ml, screw cap	Thomas	2702-A01
Screw caps, PTFE / silicone / PTFE septa	Thomas	2702-A68
Low-volume vial inserts	Thomas	2697-J61
Waste / wash vial, 4ml	Agilent	5182-0551
Petri dish (100 x 15mm)	Multiple suppliers	
Pasteur pipettes, 5in., disposable	Multiple suppliers	
<u>Gas Chromatographic System</u>		
Hydrogen gas, 99.999% pure	Local Vendor	
Nitrogen gas, 99.999% pure	Local Vendor	
Air, industrial grade, dry, <1 THC	Local Vendor	
*Agilent Ultra 2 Capillary Column (5890, 6890 GC)	Agilent	19091B-102
*Agilent Ultra 2 Capillary Column (6850 GC)	Agilent	19091B-102E
*Syringe (23-gauge straight shank needle)	Agilent	9301-0713
Graphite ferrule, 0.5mm	Agilent	5080-8853
Injection port septa	Agilent	5080-8896
Injection port liners	Microbial ID	1220
<u>Injection Port Liner Packing Supplies</u>		
Joy Brand Detergent	Local	
Cotton gloves- Inspection	Fisher	11-462
*Silane-treated glass wool (Microbial ID liners are preferred)	Supelco	20411
<u>TSBA Culture Technique</u>		
*BBL brand Granular Agar (BD # 214530)	Fisher	DF0145170
*BBL brand Trypticase Soy Broth (TSB) (BD # 211771)	Fisher	B11771
*BBL brand Trypticase Soy Broth (TSB) with agar, prepared plates	BD	299610
<u>Clinical Aerobic Culture Technique</u>		
TSA with 5% defibrinated sheep blood (BD # 221239)	Troy	1014
Chocolate Agar (BD # 221169)	Troy	1001
BBL Campylobacter CampyPak Plus	Fisher	B260-685
Lactobacilli MRS broth	BD	288130
Buffered Charcoal Yeast Extract (BCYE) for Legionella	Remel	01342
Middlebrook 7H10 for Mycobacteria w/ OADC enrichment	Remel	01600
<u>Calibration Standard</u>		
MIS Standard Calibration, 4 ampoules per box	Microbial ID	1200-A
MIS Rapid and Sensi Calibration, 4 ampoules per box	Microbial ID	1300-AA