

Bacteria and Fungus

Conditions for Customer Ownership

We hold permits allowing us to transport these organisms. To access permit conditions, [click here](#).

Never purchase living specimens without having a disposition strategy in place.

- There are a few species of bacteria that are considered a plant pest by the United States Department of Agriculture. They include: *Agrobacterium tumefaciens*, *Agrobacterium radiobacter* and *Alternaria alternata*. In order to continue to protect our environment, you must keep your bacteria contained within the lab. Under no circumstances should you dispose of your bacteria or fungus without first sterilizing it.
- Some cultures are pathogens and will only be shipped to colleges, universities and government laboratories.



Primary Hazard Considerations

- Always practice sterile technique when handling bacteria or fungi. With few exceptions, we supply agents that are not associated with disease in healthy adults. The exceptions are agents associated with human disease which is rarely serious and those exceptions are clearly indicated in the table below with a • or •• before the name. Keeping culture containers tightly sealed will minimize potential hazards.
- If you plan on opening the containers, review Biosafety in Microbiological and Biomedical Laboratories (BMBL) 5th Edition 2007 (written by U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institutes of Health) for updated best practices in safe handling of bacteria. This reference can be found at <http://www.cdc.gov/od/ohs/biosfty/bmbL5/bmbL5toc.htm>

To quote this reference:

- Persons must wash their hands after working with potentially hazardous materials and before leaving the laboratory.
- Eating, drinking, smoking, handling contact lenses, applying cosmetics, and storing food for human consumption must not be permitted in laboratory areas. Food must be stored outside the laboratory area in cabinets or refrigerators designated and used for this purpose.
- Mouth pipetting is prohibited; mechanical pipetting devices must be used.
- Policies for the safe handling of sharps, such as needles, scalpels, pipettes, and broken glassware must be developed and implemented.
- Perform all procedures to minimize the creation of splashes and/or aerosols.
- Decontaminate work surfaces after completion of work and after any spill or splash of potentially infectious material with appropriate disinfectant (usually 10% bleach or 70% isopropyl alcohol).
- Decontaminate all cultures, stocks, and other potentially infectious materials before disposal using an effective method (see disposition below). Depending on where the decontamination will be performed, the following methods should be used prior to transport.
- Materials to be decontaminated outside of the immediate laboratory must be placed in a durable, leak proof container and secured for transport.
- Materials to be removed from the facility for decontamination must be packed in accordance with applicable local, state, and federal regulations.
- It is recommended to use personal protective equipment when working with mold, fungus, or bacteria. This includes gloves, safety glasses, and lab coats.

Availability

- Bacteria and fungi are cultured in our laboratories, so are available year round. Since these cultures are perishable, shortages may occur when we have an unforeseen demand. Most items are available in three different forms, either a demonstration plate, a tube culture, or lyophilized.
- A demonstration plate is a Petri dish of bacteria or fungi. Most of these can be stored in the refrigerator for up to six weeks. Please see the care section below for exceptions. The cultures should arrive at densities that permit you to see colonies or a lawn of growth easily.

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- A tube culture is a 16mm x 125mm tube of bacteria on a slant of agar-based medium or in a broth (as described on the website or in the catalog). Most of these can be stored in the refrigerator for up to six weeks. Please see the care section below for exceptions. These cultures should arrive at densities that permit you to see colonies or cloudy broth upon agitation.
- A lyophilized culture is sold with or without media and comes as a pellet in a cryovial with instructions by itself (without media), or with a slant or a broth appropriate for the culture as well as a swab and a pipette for transfer. A lyophilized culture can be stored in the refrigerator for a year or longer and still result in viable colonies upon reconstitution. The longer it is stored, the fewer viable colonies will result.

Care

- When you receive your live cultures (tubes or demonstration plates), they should be refrigerated to slow metabolic rates. Refrigeration of supplied cultures is recommended for all but the following organisms:
 - *Vibrio fischeri*, a marine bacterium, is one of the simplest light producing organisms; it is also one of the easiest to work with. Since *Vibrio fischeri* will only produce light in high nutrition conditions, subculturing should be done 18–48 hours before the luminescence is to be observed and kept in the dark until viewing is completed. For best results, the room in which the observations are to occur should be completely darkened, and the eyes of the people who observe the experiments should be allowed to acclimate to the darkness.
 - *Halobacterium salinarium* is a slow growing organism, taking 5–7 days at 37°C for agar slants to become confluent. *Halobacterium* should be stored at room temperature and can survive temperatures up to 40°C.
 - *Chromobacterium violaceum* is a mammalian pathogen, so it will not survive cold temperatures. *Chromobacterium* should be held at 30°C and can be stored for months.
 - *Spirillum volutans* should be held at 30°C.
 - *Aquaspirillum itersonii* should be stored at room temperature.
 - *Aquaspirillum polymorphum* should be stored at room temperature.
 - *Aquaspirillum serpens* should be stored at room temperature.
 - *Rhodospirillum rubrum* is photosynthetic and should be held at room temperature. It requires a light source to survive or to grow.
- The recommended medium and the optimum temperature for each culture to achieve logarithmic growth is cited on the labels of the cultures as supplied and are reproduced in table form below.
- **Reconstituting Lyophilized (freeze-dried) Bacteria or Fungi Cultures:**

Under this mode of culture preservation, bacteria cultures will remain true-to-type. It is recommended that these cultures be stored at 5–6°C, which is normal refrigeration temperature. To reconstitute growth of freeze-dried specimens:

 1. Aseptically add to the lyophilized material no more than 0.5 mL of the appropriate sterile liquid transfer medium with a serological pipette.
 2. Mix well by drawing the hydrated cell suspension up and down through the pipette at least ten times.
 3. Inoculate the appropriate fresh sterile medium (see table below) by transferring suspension with either a sterile swab, inoculating loop, or spreading about 100 µL of suspension.
 4. Incubate agar medium preparations horizontally with agar on top, empty space on bottom to prevent drying of medium.
 5. Put remaining suspension in a tube of nutrient broth as a back-up reconstitution method.
 6. All waste materials (shell vial, pipet, etc.) should be collected and autoclaved prior to disposal.
- Most freeze-dried bacterial cultures treated as directed will grow visible colonies in 24–48 hours, and fungal cultures will grow in 3–5 days. Some strains may exhibit a prolonged lag phase and should be given twice the normal incubation period before discarding as unviable.

A table of bacteria, their recommended media, and incubation temperatures:

• = Pathogens; • • = Plant Pathogen

Bacteria Name	Classification/Information	Recommended Media	Incubation Temp.
• <i>Acinetobacter calcoaceticus</i>	Rods, Gram -, found in water and soil, causes nosocomial infections. Aerobic, non-motile.	Nutrient agar	37°C
• • <i>Agrobacterium tumefaciens</i>	Rods, motile, Gram-, causes crown gall. Aerobic. Affects over 40 species of plants.	Nutrient agar	30°C
<i>Alcaligenes faecalis</i>	Coccal rods, Gram- , intestinal flora. Aerobic, motile.	Tryptic soy agar; alpha hemolysis on blood agar	37°C
<i>Alcaligenes viscolactis</i>	Coccal rods, motile, aerobic. Gram-, Produces "ropiness" in milk capsules from milk cultures.	Tryptic soy agar	25°C
<i>Aquaspirillum itersonii</i>	Spirals with tufts, Gram-, found in stagnant or fresh water. Motile, aerobic.	Nutrient broth	25°C
<i>Aquaspirillum polymorphum</i>	Spirals, Gram-, found in pond water. Motile, aerobic.	Nutrient broth	25°C
<i>Aquaspirillum serpens</i>	Spirals with bipolar tufts, Gram-, found in pond water. Motile, aerobic.	Nutrient broth	25°C
<i>Azotobacter vinelandii</i>	Rods; often in pairs, Gram-, found in soil, fluoresces green under ultraviolet light, motile, aerobic, fixes nitrogen.	Azotobacter agar	25°C
<i>Bacillus cereus</i>	Rods; often in chains, Gram+, found in food, large amount causes food poisoning; central terminal spores aerobic motile.	Tryptic soy agar	30°C
<i>Bacillus cereus</i> var. <i>mycoides</i>	Rods, Gram+, rhizoid colonies; nonmotile aerobic; central elliptical spores.	Tryptic soy agar	30°C
<i>Bacillus licheniformis</i>	Rods, Gram+, produces protease enzymes; motile aerobic; spore-forming.	Nutrient agar	37°C
<i>Bacillus megaterium</i>	Large rods in short twisted chains, Gram+, found in soil; motile aerobic; central elliptical spores.	Tryptic soy agar	37°C
<i>Bacillus subtilis</i>	Rods, Gram+, found in soil, produces antibiotics bacitracin, subtilin and bacillin; motile aerobic; central spores, chains.	Tryptic soy agar	30°C
<i>Bacillus subtilis</i> var. <i>niger</i>	Slender rods; seldom in chains. Gram+, forms black pigment when grown in media containing tyrosine; aerobic motile; central elliptical spores.	Tryptic soy agar	30°C
<i>Bacillus thuringiensis israelensis</i>	Rods, Gram+, forms crystalline protein bodies, toxic to some insect larvae. Motile aerobic central elliptical spores used for biological control.	Tryptic soy agar	30°C
<i>Bacillus thuringiensis</i> endospores (powder)	Rods, Gram+, biological insecticide motile aerobic central elliptical spores.	Tryptic soy agar - add sterile water to endospore provider and transfer to agar.	30°C
<i>Brevibacillus brevis</i>	Subterminal spores, rods, Gram+, found in food and soil; motile aerobic.	Tryptic soy agar	30°C
<i>Cellulomonas</i> sp.	Straight curved rods, Gram+, rapidly decolorizes and may appear Gram-. Produces cellulase; degrades cellulose. Used in bioremediation of industrial waste.	Nutrient agar	30°C
• <i>Chromobacterium violaceum</i>	Rods, Gram-, found in fresh water, blue to purple pigments are produced (chromogenesis); motile aerobic.	Tryptic soy agar	30°C
<i>Citrobacter freundii</i>	Rods, Gram-, found in water, food and urine. Causes gastroenteritis and urinary tract infections, Citrate +, indole -, KCN +, lactose -, motile aerobic.	Nutrient agar	37°C
<i>Citrobacter koseri</i>	Rods, Gram-, causes urinary tract infections, bacteremia. Citrate +, indole +, KCN -, lactose +, motile aerobic.	Tryptic soy agar	37°C
<i>Clostridium beijerinckii</i>	Oval to subterminal spores, rods with rounded ends may be in pairs or short chains, Gram +, Found in soil, animal feces and cheese. Produces butyric acid and butanol. Motile anaerobic.	Thioglycollate broth	37°C

<i>Clostridium rubrum</i>	Slightly curved rods as single, pairs, or short chains, Gram+, Found in soil, forms red pigment on high carbohydrate medium. Oval eccentric spores; motile anaerobic.	Thioglycollate broth	37°C
<i>Clostridium sporogenes</i>	Rods, Gram+, Found in soil, wounds, food, and intestinal contents. Digest proteins. Oval subterminal spores; motile anaerobic.	Thioglycollate broth	37°C
• <i>Corynebacterium diphtheriae</i>	Straight to slightly curved rods, "Chinese letter" formation of cells, club-shaped swellings. Gram+, metachromatic granules. Nonmotile anaerobic.	Brain-heart infusion agar	37°C
<i>Corynebacterium pseudodiphtheriticum</i>	Short rods lie in parallel rows, no club forms, Gram +, normal flora of the nasopharyngeal mucosa. No toxins produced. Metachromatic granules absent. Nonmotile aerobic.	Brain-heart infusion agar	37°C
<i>Corynebacterium xerosis</i>	Rods; often barred: ferruginous or club forms; Gram+, Found in human skin and mucous membranes. Irregular staining. Nonmotile aerobic.	Brain-heart infusion agar	37°C
<i>Enterobacter aerogenes</i>	Rods, Gram-, Found in soil, water, and sewage, and serves as a food source for protozoa. Normal intestinal flora. Motile aerobic.	Tryptic soy agar	37°C
<i>Enterobacter cloacae</i>	Rods, Gram-, Found in sewage, water, soil, and dairy products. Intestinal flora. Esculin +. Motile aerobic.	Tryptic soy agar	37°C
• <i>Enterococcus faecalis</i>	Cocci; short chains, Gram+, normal flora of human intestine, Lancefield group D. Bile esculin +, grows in NaCl solution. Gamma hemolysis. May be pathogenic in humans. Nonmotile aerobic.	Blood agar/Tryptic soy agar	37°C
<i>Escherichia coli</i>	Rods, Gram-, often found in urinary tract infections, normal intestinal flora. Lactose +, indole +, citrate -. May be pathogenic in humans. Motile aerobic.	Tryptic soy agar	37°C
<i>Escherichia coli</i> , Lactose positive	Rods, Gram-, used for culturing <i>Dictyostelium discoideum</i> (cellular slime mold). May be pathogenic in humans. Motile aerobic.	Tryptic soy agar	37°C
<i>Escherichia coli</i> , Lactose negative	Rods, Gram-, does not ferment lactose; gene for utilizing lactose has been deleted. Indole +, citrate -. Motile aerobic.	Tryptic soy agar	37°C
<i>Geobacillus stearothermophilus</i>	Rods, Gram+, used in germicidal/sporicidal testing; thermophilic. Motile aerobic.	Tryptic soy agar	57°C
<i>Halobacterium salinarium</i>	Rods in 25% salt. Cocci in 15% salt. Gram-, Red pigmented halophile from evaporating salt ponds.	Halobacterium agar	37°C
• <i>Klebsiella pneumoniae</i>	Rods, Gram-, Causes pneumonia and urinary tract infections; noted for capsular swelling; encapsulated. Aerobic nonmotile.	Nutrient agar	37°C
<i>Kocuria rhizophila</i> (<i>Micrococcus luteus</i>)	Cocci; in tetrads, Gram+; found in water, air, soil, and on skin. Yellow pigment produced (chromogenesis). Nonmotile aerobic.	Tryptic soy agar	25°C
<i>Kocuria rosea</i>	Cocci in tetrads, Gram+ found in soil or water, pink or rose pigment produced (chromogenesis). Nonmotile aerobic.	Tryptic soy agar	25°C
<i>Lactobacillus casei</i>	Rods in chains, Gram+, found in milk and cheese, used to ferment milk. Non motile; facultatively anaerobic; sometimes microaerophilic.	Tomato juice agar	37°C
<i>Lactobacillus delbrueckii</i> ss. <i>bulgaricus</i>	Rods, Gram+, isolated from milk, used in the manufacture of yogurt, buttermilk, and cheese. Non motile; facultatively anaerobic; sometimes microaerophilic.	Tomato juice agar	37°C
<i>Lactococcus lactis</i>	Cocci; chains, Gram+, isolated from milk, ferments lactose. Lancefield Group N gamma hemolysis. Nonmotile aerobic.	Tryptic soy agar	37°C
<i>Methanomonas methylovora</i>	Rods straight or curved, Gram-, Utilizes methanol as energy source and forms methane by reducing carbon dioxide.	Methanol agar	30°C

<i>Moraxella catarrhalis</i>	Cocci in pairs, Gram-, normal flora of respiratory tract. Beta-lactamase+. Nonmotile aerobic; tendency to resist decoloration.	Blood agar	37°C
• <i>Morganella morganii</i> (<i>Proteus morganii</i>)	Rods, Gram-, Found in human intestines; putrefactive odor. Motile aerobic.	Tryptic soy agar	37°C
<i>Mycobacterium nonchromogenicum</i>	Slender rods. Not readily stained by gram method, but considered Gram+, acid fast staining. Isolated from soil. Nonmotile aerobic.	Lowenstein-Jensen agar	37°C
• <i>Mycobacterium phlei</i>	Short rods, Not readily stained by gram method, but considered Gram+, acid fast stain. Isolated from hay and grass. Nonmotile aerobic.	Lowenstein-Jensen agar	37°C
• <i>Mycobacterium smegmatis</i>	Slender rods with branching or Y shapes, Not readily stained by gram method, but considered Gram+, acid fast stain. Isolated from smegma, occasionally from soil. Nonmotile aerobic.	Lowenstein-Jensen agar	37°C
<i>Neisseria flava</i>	Cocci; in pairs (adjacent sides flattened), Gram-, found in human nasopharynx, often agglutinates in saline, nonmotile aerobic.	Brain-heart infusion agar or chocolate agar	37°C
<i>Neisseria sicca</i>	Cocci; in pairs (adjacent sides flattened), Gram-, isolated from human nasopharynx, saliva, and sputum. Spontaneously agglutinates in saline, nonmotile aerobic.	Brain-heart infusion agar or chocolate agar	37°C
<i>Novosphingobium capsulatum</i> (<i>Flavobacterium capsulatum</i>)	Rods; in chains, Gram-, isolated from distilled water, capsules produced in milk; psychrophilic (prefers low temperature); produces yellow pigment. Nonmotile aerobic.	Nutrient agar	25°C
• <i>Proteus hauseri</i>	Rods, Gram-, Isolated from human urinary tract and wound infections. Putrefactive odor. Motile aerobic.	Tryptic soy agar	37°C
• <i>Proteus mirabilis</i>	Rods, Gram-, Isolated from sewage, urinary tract infections, and human intestines. Spreading colonies on agar growth medium. Motile aerobic.	Tryptic soy agar	37°C
<i>Providencia stuartii</i> (<i>Proteus inconstans</i> group B)	Rods, Gram-. Motile aerobic.	Nutrient agar	37°C
• <i>Pseudomonas aeruginosa</i>	Rods, Gram-, isolated from urinary tract infections, polluted water, and sewage. Odor of trimethylamine (grapes) may turn agar light green due to production of pyocyanine (blue pigment). Motile aerobic.	Tryptic soy agar	37°C
<i>Pseudomonas fluorescens</i>	Rods, Gram-, found in soil and water; associated with spoiled food. Produces a diffusible fluorescent pigment. Motile aerobic.	Nutrient agar	25°C
<i>Pseudomonas fragi</i>	Rods, Gram-, fragile and heat sensitive. No growth at 37°C. Motile aerobic.	Nutrient agar	25°C
<i>Pseudomonas putida</i>	Rods, Gram-, found in soil and water rich in minerals; organism of putrefaction. Motile aerobic.	Nutrient agar	25°C
<i>Rhizobium leguminosarum</i>	Rods, Gram-, nitrogen fixation; produces nodules on legume roots; bacteroids from nodules can be x, y, and club shapes. Motile aerobic.	Rhizobium agar	25°C
<i>Rhodococcus (mycobacterium) rhodochrous</i>	Rods, Gram+, produces a rosy pigment. Not acid fast. Nonmotile aerobic.	Brain-heart infusion agar	25°C
<i>Rhodospirillum rubrum</i>	Spirillum, Gram-, found in stagnant water and mud, produces a red pigment, and is capable of photosynthesis. Motile anaerobic in light.	Nutrient broth	25°C
• <i>Salmonella enteritidis</i>	Rods, Gram- Frequent human isolate causes gastroenteritis. Motile aerobic.	Nutrient agar	37°C
• <i>Salmonella typhimurium</i> , Ames Test Strain	Rods, Gram-, Ames test strain for detecting carcinogens; causes infection in humans. Motile aerobic.	Nutrient agar	37°C
<i>Sarcina aurantiaca</i>	Cocci; in tetrads and packets, Gram+, produces orange pigments. Nonmotile aerobic.	Tryptic soy agar	25°C
<i>Serratia liquefaciens</i>	Rods, Gram-, colorless, most widely dispersed of the <i>Serratia</i> species. Motile aerobic.	Nutrient agar	30°C
<i>Serratia marcescens</i> D1	Rods, Gram-; isolated from soil, produces red pigments (chromogenesis); mutates to colorless at 37°C. Motile aerobic.	Tryptic soy agar	25°C
<i>Serratia marcescens</i> 933	Rods, Gram-, colorless mutant, produces a red pigment when grown in conjunction with <i>S. marcescens</i> WCF. Motile aerobic.	Nutrient agar	25°C

<i>Serratia marcescens</i> WCF	Rods, Gram- , colorless mutant, can induce red pigment in <i>S. marcescens</i> 933. Motile aerobic.	Nutrient agar	25°C
• <i>Shigella flexneri</i>	Rods, Gram-, from sewage and human intestines; causes dysentery. Nonmotile aerobic.	Nutrient agar	37°C
• <i>Shigella sonnei</i>	Rods, Gram-, isolated from human intestines; causes a mild form of dysentery, lactose +, sucrose + after a few days' growth. Nonmotile, facultatively anaerobic.	Nutrient agar	37°C
<i>Spirillum volutans</i>	Spirals, Gram-, largest of spirillum; isolated from stagnant pond water. Motile microaerophilic.	PSS broth	30°C
<i>Sporosarcina ureae</i>	Cocci; in tetrads or packets, Gram+. Motile aerobic.	Nutrient agar	25°C
• <i>Staphylococcus aureus</i>	Cocci; grape like clusters, Gram+, causes wound infections and toxic shock syndrome. Chromogenesis - yellow to orange pigments produced; coagulase +, catalase +. Nonmotile aerobic.	Tryptic soy agar	37°C
• <i>Staphylococcus aureus</i> , Beta-Hemolytic Strain	Cocci; grape like clusters, Gram+, causes wound infections and septicemia, beta hemolysis on blood; coagulase +, catalase +. Nonmotile aerobic.	Tryptic soy agar	37°C
• <i>Staphylococcus aureus</i> , Coagulase Negative	Cocci; grape like clusters, Gram+, coagulase -, catalase +, chromogenesis, yellow or golden pigment produced. Nonmotile aerobic.	Tryptic soy agar	37°C
<i>Staphylococcus epidermidis</i>	Cocci; grape like clusters, Gram+, normal flora of human skin; coagulase -, catalase +. Nonmotile aerobic.	Tryptic soy agar	37°C
<i>Staphylococcus saprophyticus</i>	Cocci; grape like clusters, Gram+, grows on dead tissues; novobiocin resistant. coagulase -, catalase +. Nonmotile aerobic.	Tryptic soy agar	37°C
• <i>Streptococcus agalactiae</i>	Cocci; tetrads or chains, Gram+, isolated from milk and udders of cows. Lancefield group B, beta hemolysis. Causes infection of female genital tract, maternal septicemia. Camp test +; bacitracin resistant. Nonmotile aerobic.	Blood agar	37°C
• <i>Streptococcus equisimilis</i>	Cocci; pairs or chains, Gram+, causes strangles in horses Lancefield group C, beta hemolysis. May be pathogenic in humans. Camp test -; bacitracin resistant; doesn't ferment lactose. Nonmotile aerobic.	Blood agar	37°C
<i>Streptococcus gallolyticus</i>	Cocci moderate chains, Gram+, isolated from the alimentary tract of cows; Lancefield group D, gamma hemolysis. May be pathogenic in humans. Nonmotile aerobic.	Blood agar	37°C
<i>Streptococcus mutans</i>	Cocci; chains, Gram+, found on dental plaque; implicated in formation of cavities. No Lancefield group, gamma hemolysis. Nonmotile aerobic.	Tryptic agar growth/ Blood agar	37°C
• <i>Streptococcus pneumoniae</i>	Cocci; chains, Gram+, causes pneumonia. No Lancefield group alpha hemolysis. Bile solubility test +, optochin sensitive. Nonmotile aerobic.	Blood agar	37°C
• <i>Streptococcus pyogenes</i>	Cocci; chains, Gram+, causes strep throat, rheumatic fever, and scarlet fever. Lancefield group A, beta hemolysis, Bacitracin sensitive, also grows well in 5% CO ₂ . Nonmotile aerobic.	Blood agar	37°C
<i>Streptococcus salivarius</i>	Cocci; chains, Gram +, normal flora of the mouth and throat; Lancefield group K, gamma hemolysis. Nonmotile aerobic.	Blood agar	37°C
• <i>Streptococcus sanguinis</i>	Cocci; chains, Gram+, normal flora of the mouth and throat, may cause infections in humans; Lancefield group H, optochin resistant, alpha hemolysis. Nonmotile aerobic.	Blood agar	37°C
• <i>Streptococcus viridans</i>	Cocci; chains, Gram+, isolated from human saliva, sputum, and intestine; forms long chains in broth cultures. No Lancefield group, alpha hemolysis. Nonmotile aerobic.	Blood agar	37°C
<i>Streptomyces albus</i>	Gram+, isolated from straw; slight anti-bacterial activity. Nonmotile with coenocytic hyphae.	Yeast malt extract agar	25°C
<i>Streptomyces griseus</i>	Gram+, produces streptomycin; branching mycelium; coenocytic hyphae. Nonmotile aerobic.	Yeast malt extract agar	37°C
<i>Streptomyces violaceus</i>	Gram+, produces a violet color that diffuses through agar growth medium; anti-bacterial, anti-fungal, anti-viral activities; branching vegetative mycelium. Nonmotile aerobic.	Sporulation agar	25°C
<i>Vibrio fischeri</i>	Rods; curved and flagellated, Gram-, isolated from seawater and marine animals, young cultures are luminescent. Motile aerobic.	Photobacterium agar	25°C

A table of fungi, their recommended media, and incubation temperatures:

• = Pathogens; • • = Plant Pathogen

Fungi Name	Classification/Information	Recommended Media	Incubation Temp.
• • <i>Alternaria alternata</i>	Conidia in chains, produces multicellular spores, common allergenic mold. Deuteromycete.	Potato dextrose agar	25°C
<i>Amylomyces rouxii</i> (<i>Mucor rouxii</i>)	Zygomycete, exhibits mold yeast dimorphism.	Potato dextrose agar	25°C
<i>Arthrobotrys conoidea</i>	Deuteromycete, traps nematodes and is a biological control organism.	Cornmeal agar	25°C
<i>Aspergillus niger</i>	Deuteromycete, "Black mold", is a common airborne contaminant, causes aspergillosis. Produces citric acid.	Sabouraud dextrose agar	25°C
• <i>Candida albicans</i>	Deuteromycete, causes thrush candidiasis, multiplies by budding. Forms germ-tubes. in serum cultures.	Potato dextrose agar	37°C
<i>Chaetomium globosum</i>	Ascomycete, used in industrial applications to destroy cellulose.	Potato dextrose agar + sterile filter paper	25°C
<i>Coprinus cinereus</i>	Basidiomycete, inky-capped mushroom; jar culture with fruiting bodies.	YM/Rabbit dung agar	30°C
<i>Eurotium chevalieri</i>	Ascomycete, demonstrates cleistothecia and conidia.	YM agar	25°C
<i>Mucor hiemalis</i>	Zygomycete, dung mold, mating strains (+) and (-).	Potato dextrose agar	25°C
<i>Neurospora crassa</i>	Ascomycete, red bread mold "bakery mold".	Neurospora agar	25°C
<i>Penicillium chrysogenum</i>	Deuteromycete, produces penicillin.	Malt extract agar	25°C
<i>Penicillium notatum</i>	Deuteromycete, blue food mold, produces penicillin.	Potato dextrose agar	25°C
<i>Phycomyces blakesleeianus</i>	Zygomycete, hair-like structure, mating strains (+) and (-).	Potato dextrose agar	25°C
<i>Pilobolus kleinii</i>	Zygomycete, "shotgun fungus," exhibits phototropic response.	Rabbit dung agar	25°C
<i>Rhizopus stolonifer</i> (<i>nigricans</i>)	Zygomycete, common black bread mold, lab contaminant mating strains (+) and (-).	Potato dextrose agar	25°C
<i>Rhodotorula rubra</i>	Deuteromycete, pink yeast, pink to red pigment on agar growth medium.	Sabouraud dextrose/YM agar	30°C
<i>Saccharomyces cerevisiae</i>	Ascomycete, bakers yeast, reproduction by budding.	Sabouraud dextrose/YM agar	30°C
<i>Schizophyllum commune</i>	Basidiomycete, bracket fungus, jar culture ready to fruit.	YM agar	30°C
<i>Schizosaccharomyces octosporus</i>	Ascomycete, reproduces by fission instead of budding, naked asci.	YM agar	30°C
<i>Sordaria fimicola</i>	Ascomycete.	Sordaria agar	25°C

Disposition

When finished with your bacteria or fungi please dispose of them in one of the following ways:

- Use a 20% bleach solution for 10 minutes (ensure the culture does not open until the culture is submerged in solution in order to ensure no releasing of the organism into the environment).
- Place the organism in 70% isopropyl alcohol for 24 hours (ensure the culture does not open until the culture is submerged in solution in order to ensure no releasing of the organism into the environment).
- Autoclave the organism @ 121°C for 15 minutes in an autoclavable bag. The Petri dish it is contained in will melt in an autoclave, so be sure to bag your organism and close securely before autoclaving.