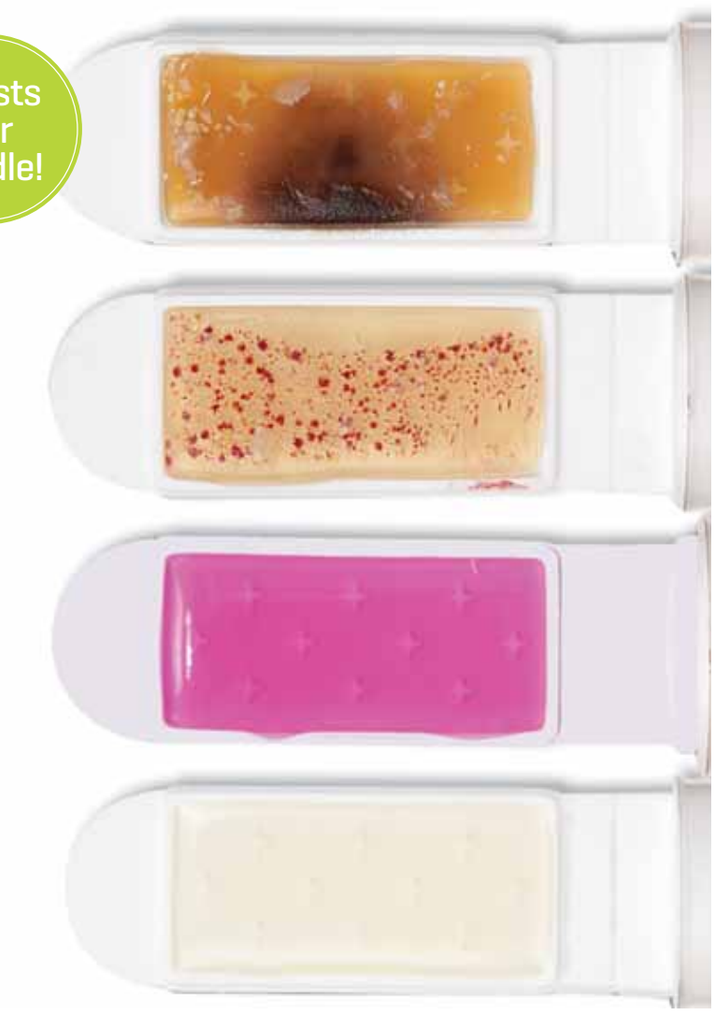
BioPaddles®

Microbiology Simplified!

- ready to use—saves time!
- reduced cost and waste
- longer shelf-life than traditional treated Petri dishes
- no refrigeration required
- no need for inoculating loops or Bunsen burners
- simple incubation requirements
- unique design enhances colony morphology characterization

2 Tests Per Paddle!



BioPaddles are flexible, dual-agar paddles each side containing microbe-specific media enclosed in a sterile vial. Identify and quantify microbes in air, soil, water or any surface! BioPaddles do not require any other testing equipment—only a magnifier and warm place (or incubator) are needed.

Liquid Sampling: Remove the paddle from the vial and fill the vial (approximately 40 mL) with the sample. Insert the paddle, swirl for 15 seconds. Pour out the liquid and replace paddle in the vial and incubate.

Surface Sampling: Remove the paddle from the vial and gently touch each paddle media surface to the sample surface twice per side. Replace paddle in the vial and incubate.

Air Sampling: Remove the paddle from the vial. Invert and mount the circular cap into the vial, exposing the agar covered paddle. Expose for 15 minutes. Replace the paddle in the vial and incubate.

BioPaddles® products—all packaged 10 paddles per box. Includes general instructions and provides access to detailed technical documents for each paddle type.

BioPaddles

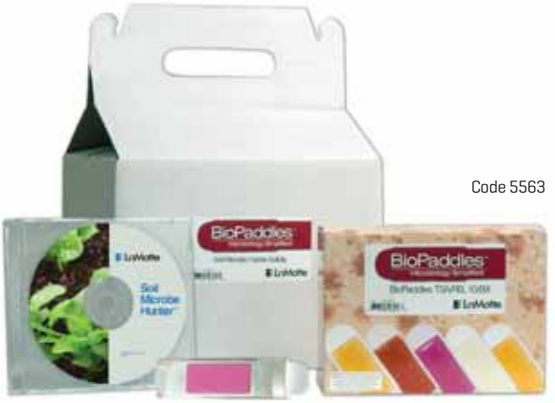
Code	Type of Agar	Description	Shipping
5550	BioPaddle Nutrient Agar	For routine culture of non-fastidious bacteria.	NH (1)
5551	BioPaddle Sabouraud Dextrose Agar	For selective cultivation of fungi (yeasts and molds)	NH (1)
5552	BioPaddle Tryptic Soy (TSA)/Rose Bengal (RB) Agars	For cultivation of a wide variety of microorganisms (TSA) and selective isolation of yeasts and molds (RB).	NH (1)
5553	BioPaddle Nutrient TTC/ MacConkey Agars	For field sampling cultivation and enumeration of coliform bacteria (TTC) and total coliform count (TCC). Gram (-) bacterial colonies appear as red dots. Gram (+) bacteria are usually inhibited. For improved differentiation between coliforms and non-lactose fermenting organisms (MAC). Gram (+) cocci are usually inhibited.	NH (1)

NOTE: Dated material. Specify ship date. Orders may be placed in advance. Orders shipped from Maryland on Monday and Tuesday only.

There's An App For That!

All BioPaddles® products include a free app! Free LaMotte BioPaddles® Colony ID™ Lite app for iPads lets users compare colony examples on BioPaddle agar types from 5 microhabitats (air, water, soil, surface and food). Also contains information regarding organisms, microbiological techniques, and more! See page 22.

New BioPaddles® Colony ID™ app for iPads has a library of over 250 images of 30+ microbes, ideal for presumptive identification. Images of microbial growth on BioPaddles® can be captured with the iPad camera and imported for a side-by-side comparison to the images in the reference library. Using the new Report function a report including a full color image can be prepared and distributed directly by email. Expanded resource materials include Fungi and Bacteria Microanatomy and Microbe Exclusionary Charts. Available for purchase through iTunes. Visit our web site at www.lamotte.com and click on BioPaddles for a direct link.



Code 5563

NGSS ALIGNED

Microbe Hunter™ Activities

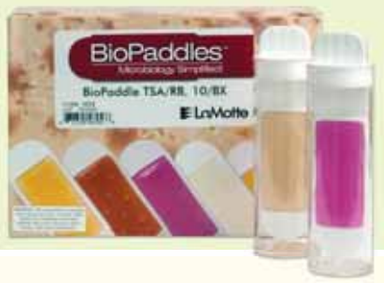
Grades 6 and up

A fun and safe way to bring STEM-based learning into the classroom!

STEM-based activities guide students through the culturing and presumptive identification of common microbes on innovative BioPaddles®—each containing microbe-specific media enclosed in a sterile vial. Students apply science, technology, engineering, and math concepts to the exploration of microbes that they encounter every day. Activities develop critical thinking skills and emphasize engineering as a key component.

Each Microbe Hunter includes a CD, 10 BioPaddles to perform the first two activities, and 10 magnifying lenses. Additional paddles may be purchased to perform additional activities, STEM extention activities and Going Further activities.

- Culture bacteria without Petri dishes—no prep time
- Four to five inquiry-driven activities
- Student designed investigations of daily surroundings and natural environments
- Structured, guided, and open adaptable activities
- Introductory to advanced level activities
- Free microbe identification app from iTunes store
- Structured for classroom use
- Student Guide and Teacher Guide with examples and answers
- PowerPoint presentations for iPad, ID Guides, resources, links



REFILL: TSA/RB BioPaddles for all Microbe Hunter activities

Order Code 5552 | NH (1)

Probiotic Dairy Microbe Hunter

Order Code 5560 | NH (1)

Students identify and explore microbes cultured from popular dairy products like milk, yogurt, and Kefir. Teams design a monitoring method to determine when a dairy product is spoiled. Activities and topics include probiotics, fermentation, pasteurization, and shelf life. STEM extension activities include demonstrating the correlation between pH and milk curdling.

Surface Microbe Hunter

Order Code 5561 | NH (1)

Students discover factors that influence the growth and removal of surface microbes, design and evaluate cleaning protocols, and compare the effectiveness of antimicrobial materials. Activities and topics include surface characteristics, microbial diversity, biofilms, surface microbe identification, sanitizers and disinfectants. STEM extension activities ask *How Clean Are Kitchen Sponges?* And use popular mousepads to answer *Do Antimicrobials Keep Products Cleaner?*

Air Microbe Hunter

Order Code 5562 | NH (1)

Students predict which environmental conditions are favorable to airborne microbes and then propose and carry out a strategy to collect airborne microbes using passive sampling techniques. Students construct and calibrate an impact sampler to sample an airspace and determine airborne microbe contaminate levels. Activities and topics include the presumptive identification of airborne microbes, bioaerosols, cloud chemistry and precipitation, bacterial ice nucleators, and airborne diseases. STEM extension activities include *How Did Fungus Get Into King Tut's Tomb?* and *Dust and Dust Bunnies*.

Soil Microbe Hunter

Order Code 5563 | NH (1)

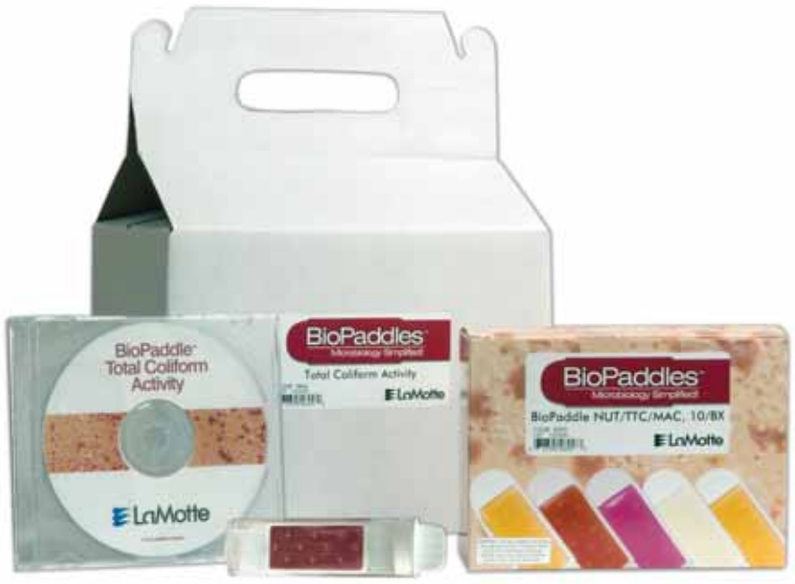
Students research the process of soil formation, soil characteristics, and the influence of environmental conditions on soil microbe populations. Students assess and sample various soil ecosystems using the surface contact impression technique, dilution technique, root wash technique, and the Rossi-Cholodny buried slide contact transfer technique. Microbes are identified and enumerated to calculate microbial diversity. Activities and topics include the effect of fertilizer on lawn microbe populations, rhizosphere ecosystems, biological soil crusts, and biopesticides. STEM extension activities include *Is There Such a Thing as Sterile Soil?*, *Investigating Soil Inoculants* and *Soil Crust Hunt*.

Food Microbe Hunter

Order Code 5565 | NH (1)

Students determine what factors affect microbe growth in food by designing experiments to control intrinsic and extrinsic factors, predict the probability of microbe growth on foods, and design an experiment to prove their hypothesis about the preservative effects of pickling. Activities and topics include identification of microbes in and on food, food spoilage, moisture equilibrium, water activity, nutrients, and food as an ecosystem. STEM extension activities include evaluating the effectiveness of garlic as an antimicrobial agent and the demonstration of Koch's Postulate.

Also See: Total Coliform kits pg. 17



Code 5846

BioPaddles®
Total Coliform Activity

Grades 9 and up

Order Code 5846 | NH (2)

Fast and reliable cultivation and enumeration of coliform bacteria. Includes 5553/Nutrient TTC/MacConkey BioPaddles (10 paddles) (page 22). Activity also includes a Teacher Resource CD with a complete coliform test activity, Teacher and Student Guides, PowerPoint and iPad/iPod formatted material that provides helpful background information on coliforms, field testing, Fecal Coliform Count, Total Viable Count (TVC) and Total Coliform Count (TCC) enumeration. Can be used as a demonstration or a classroom activity. Additional BioPaddles are available. Also includes a **Free LaMotte BioPaddles® Colony ID™ Lite** app.

Refill Paddles

BioPaddles Nutrient TTC/Maconkey Agar

Order Code 5553 | NH (1)

BioPaddles® Colony ID™ Apps

BioPaddles® Colony ID™ Lite App

All BioPaddles products include a free app! The FREE BioPaddles® Colony ID™ Lite app for iPads lets users enumerate and presumptively identify colony growth by comparison to full color images. Lab procedures, identification guides and microbe fact sheets are included. Coming soon, a camera function in the BioPaddles® Colony ID™ app will capture microbe images for a side-by-side comparison to the library of images and inclusion in an emailable report.

BioPaddles® Colony ID™ App

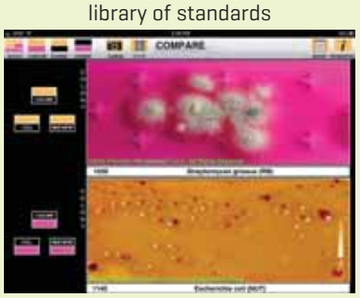
The BioPaddles® Colony ID™ app for iPads expedites the presumptive identification of microbe growth on BioPaddles with a large library of over 250 full-color images of 35 microbes and microbe growth examples in five microhabitats. Use the iPad camera function to capture an image of the growth on your paddle and add it to the library for a side-by-side comparison. Resource materials—including microbe fact sheets, identification guides, and physical characteristics charts—provide a foundation for the determination. Once the microbes have been identified, a report containing the paddle image and pertinent information can be emailed directly from the app. For more information go to the App Store.

There's An App For That!

Available on the App Store

itunes.apple.com/us/app/id567584998

Compare your sample to a library of standards



Take a photo of your sample to compare to the standards

Write a report on your findings and email to others