

WATER, Test Code 1096-Mycobacterium Culture

Mycobacterium can be found in soil, house dusts, plants, water, and any environmental source. These organisms cause illness in immune compromised individuals especially AIDS patients. The opportunistic mycobacteria are most commonly associated with pulmonary disease but can be known to cause skin infections at trauma or surgical sites. *Mycobacterium marinum* has been linked to cutaneous skin lesions from lakes and rivers. *Mycobacterium avium* and *intracellulare* also known as M. avium complex (MAC) have been detected in rivers, groundwater, soil, surface water and drinking water. These organisms have been known to cause pulmonary disease in immune compromised individuals. In last two decades it has been recognized that MAC infections are more common nowadays because of AIDS patients. *M. fortuitum* and *M. chelonae* are two rapidly growing species of mycobacterium they take anywhere from three to five days to grow. *M. fortuitum* is known for surgical site infections, cellulites, chronic pulmonary disease and most common species associated with nosocomial outbreaks. *M. chelonae* is known to cause disease in individuals taking steroids or immunosuppressive medications causing multiple draining skin lesions.

****Contact the laboratory if you are sampling for Mycobacterium tuberculosis.**

-
1. Obtain a sterile container from Aerobiology.
 2. Collect a 100ml of water from the tap or reservoir in the sterile container making sure the inside of the container is not contaminated by the collector.
 3. Keep the water in a cooler and an ice pack for transportation to the laboratory.
 4. The water sample **must** reach the laboratory within 24 hours of collection or the sample will be deemed invalid.

References:

Dillon, H. Kenneth, L. Hung, J. Miller, Field Guide for the Determination of Biological Contaminants in Environmental Samples., 5.2.6.6:61, 7.1: 141-143 (2005).

Eaton, Andrew D., Lenore S. Clesceri, Eugene W. Rice, Arnold E. Greenberg, Standard Methods for the Examination of Water and Wastewater., 9-21 (2005).

Hurst, Christon, Ronald Crawford, Guy Knudsen, Michael McInerney, Linda Stetzenbach, Manual of Environmental Microbiology., 17: 194 (2002).

Murray, Patrick R., Ellen Baron, Michael Pfaller, Fred Tenover, Robert Tenover, Manual of Clinical Microbiology, 7th Edition., 399-403 (1999).