MICROBIAL DETECTION APPARATUS, MICROBIAL DETECTION METHOD, AND SAMPLE CONTAINER USED THEREIN

ABSTRACT OF THE DISCLOSURE

It is intended to rapidly, highly precisely, highly sensitively, and conveniently detect and determine a small number of microbes contained in a large amount of a sample. The present invention provides a sample container comprising, in the bottom, a two-layer membrane filter comprising a first layer as an upper layer serving as a hydrophilic membrane filter and a hydrophobic membrane filter as an underlying second layer capable of filtering an aqueous solution without the use of a wetting agent and by means of a formed negative pressure. Using this sample container, a large amount of an aqueous sample solution is filtered by means of a negative pressure formed by a suction portion to capture microbes in the aqueous sample solution by the hydrophilic membrane filter. Then, the negative pressure is restored to normal pressure, and a microbial dissolution solution is then added to the membrane filter to retain the microbial dissolution solution for a given time on the hydrophobic membrane filter. Then, the microbial dissolution solution is dispensed to a reaction container containing a luminescent reagent, and luminescence is detected to detect the microbes.

Figure 1