Title (en)

APPARATUS AND METHOD FOR DETECTING MICROSCOPIC LIVING ORGANISMS USING BACTERIOPHAGE

Title (de)

VORRICHTUNG UND VERFAHREN ZUM NACHWEIS MIKROSKOPISCHER LEBENDER ORGANISMEN MITTELS BAKTERIOPHAGEN

Title (fr)

APPAREIL ET PROCEDE DE DETECTION D'ORGANISMES VIVANTS MICROSCOPIQUES AU MOYEN DE BACTERIOPHAGE

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Application

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Abstract (en)

[origin: WO2005001475A2] A method for detecting one or more target bacteria (14) in a raw sample where: bacteriophage(s) (18, 102) specific to each target bacterium are added to the raw sample, the test sample is incubated, and the test sample is applied to a substrate (64, 220) which changes color if either the bacteriophage or a biological substance associated with the bacteriophage is present. The substrate contains antibodies (44, 228) that bind specifically to each phage. The bacteria in the test sample may be lysed by adding a microbial lysozyme (22) to the bacteriophage exposed sample. The parent phages (102) are tagged (105) in such a way that they can be separated from the progeny phage (106) prior to the detection process. The phage can by dissociated (94, 124) after the incubation process and the sample tested (99, 116) for the presence of individual capsid proteins (97, 72) or phage nucleic acids (74). The invention can be used (140) to test target bacteria for antibiotic resistance.

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