



To identify and count the number of *Pseudomonas aeruginosa* in liquids or on surfaces
Used in oil, gas and petrochemical industries, air industries, food industries, water and waste water, and other industries.

Pseudomonas are found in water containing oxygen and rich in organic pollutants such as diesel, solvents, etc. The presence of *Pseudomonas* in the samples indicates biological and aerobic decomposition in the system, after which sediments will be formed in the system. *Pseudomonas* are able to produce fluorescent pigments, which are considered dangerous from a health point of view.

The presence of *Pseudomonas* bacteria in water samples is associated with many problems such as the formation of masses called slime, turbidity, bad taste and smell, corrosion, biodegradation and health problems. These bacteria usually produce the smell of fish or kerosene. The presence of aggressive fluorescent producing *pseudomonas* must be taken into account because it can be associated with skin, eye, ear and urinary tract infections.

Pyocyanin and pyoverdine are the two main pigments produced by *Pseudomonas*. Pyocyanin is a pigment characterized by a bluish color and is caused by the presence of *Pseudomonas aeruginosa*. This strain is usually associated with clinical samples such as wounds, burns, ear inflammation, lung ulcers, and urinary tract infections, and it is considered an important health problem in the waters of recreational areas.

MicrobCheck™ *Pseudomonas* slides have a special culture medium on one side of the slide and are able to identify *Pseudomonas aeruginosa* bacteria from water, food and dairy samples. This kit is exclusive and the presence of *Pseudomonas aeruginosa* bacteria in the sample is determined by the formation of green colonies on the slide.

The other side of the slide has a rich agar culture medium with a special formulation that makes it possible to easily count the total number of aerobic microorganisms present in a liquid sample or a surface. The TTC present in the culture medium of these slides, by reacting with the enzymes produced in the aerobic respiration of bacteria, causes the color of the colonies to change from white to red, thus making it easier to count.

MicrobCheck™ *Pseudomonas* slides have two different culture media on both sides of the slide and the examination surface with dimensions of 8 square centimeters.

Manufacturer's Recommendation

Avoid contact with the inner wall of the falcon and perform the test under sterile conditions.

After opening the Falcon door, place the door upside down on a clean surface with the bottom facing the ground.



Test Method

Liquid Sampling: After taking out the slide from inside the sterile falcon, dip it into the liquid under investigation and wait for ten seconds, then take out the slide and wait for a few seconds until the excess liquid is removed from the surface of the slide. After that, put the slide back inside the falcon and close the Falcon door well.

Surface Sampling: Remove the slide from the sterile falcon and examine it in direct contact with the surface. The contact of two surfaces should be in such a way that the agar medium of the slide is completely spread over the examined surfaces so that the maximum bacterial recovery takes place.

Air Sampling: take the slide out of the sterile falcon and expose it to air for 15 minutes and then put it back inside the falcon.








Incubation: Incubate the slides at 35-37 °C for 24-72 hours.

Interpretation of Results

Compare the growth pattern of the bacteria with the reference images. The number is calculated based on colony forming units (CFU) per ml.






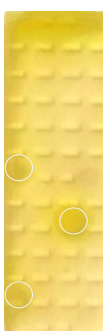
The growth of *Pseudomonas aeruginosa* bacteria is associated with the production of green pigments, therefore the color of the agar medium changes to green. The higher the sample contamination with *Pseudomonas aeruginosa*, the darker the green color of the culture media. Note that the morphology of the colonies of this bacterium on the agar medium is in the form of irregular mucoid that spread over the medium, and if the number of colonies is high, they cannot be separated and counted. In the first two reference images for *Pseudomonas aeruginosa*, colonies are marked with circles. Sometimes a red or green color may appear around the slide, which does not affect the counting of colonies and is not calculated.

Total Bacterial Count

CFU / ml	10^7	10^6	10^5	10^4	10^3	10^2	10^1
Reference Images							



Total *Pseudomonas aeruginosa* Count

CFU / ml	10 ⁷	10 ⁶	10 ⁵	10 ⁴	10 ³	10 ²
Reference Images						

Quality Control of MicrobCheck™ *Pseudomonas* Test kit

To confirm the quality and performance of the MicrobCheck™ *Pseudomonas* test kit, the specified strains can be cultured and the results checked. To perform this test, prepare a diluted suspension of the reference bacteria and immerse the slides of the kit in it.

Organism (ATCC)	TBC side	<i>Pseudomonas</i> side
<i>Pseudomonas aeruginosa</i> (27853)	Red Colonies	Yellow-green colonies with agar color change
<i>Escherichia coli</i> (25922)	Red Colonies	Inhibition

Best Time to Use

The expiration date of the kits is 6 months and it is necessary to store them in the refrigerator. It is recommended to avoid frequent changes in temperature, storage in the freezer and extreme freezing. It is possible to see a small amount of moisture in the bottom of the falcon. This has no effect on the performance of the test kit. In case of improper storage, a sign of growth, dehydration or separation of agar from the slide may be observed. In this case, do not use test kits.

Disposal

Test kits are completely contaminated after use and bacterial growth. As a result, it is necessary to autoclave them or burn them in a furnace. If this is not possible, open the falcons under the laboratory hood and fill it with bleach liquid with a concentration of 5 to 10%. Let it sit overnight and then throw it away.

