AE0003 CleanTrust$_{TM}$ TOTAL ATP Water Swab Instructions For Use

Overview

ATP is the abbreviation of the chemical substance adenosine triphosphate. It is commonly found in all living cells including microorganisms. Its main function in the cell is to provide energy.

Based on the principle of firefly luminescence, the "luciferase-luciferin system" can be used to quickly detect the ATP content in the test environment, making it easier to monitor ATP levels in water as a quality indicator in areas like clean-in-place (CIP) systems and rinse water samples. ATP monitoring is also used for water treatment applications in healthcare and monitoring biomass in cooling towers.

Under the catalysis of luciferase, ATP present in the sample reacts with luciferin to produce fluorescence, and the fluorescence intensity (RLU) is proportional to the ATP content. The higher the RLU value, the higher the ATP content and the dirtier the surface.

CleanTrust$_{TM}$ TOTAL ATP Water Swabs measures both ATP contained within living cells and particulate matter (microbial ATP) as well as ATP dissolved in water (non-microbial or dead microbial ATP).

Kit Composition

Box – AE0003

Item	Quantity
CleanTrust$_{TM}$ TOTAL ATP Water Swabs	100 swabs
Instructions for Use	1 copy

Scope

Water samples.

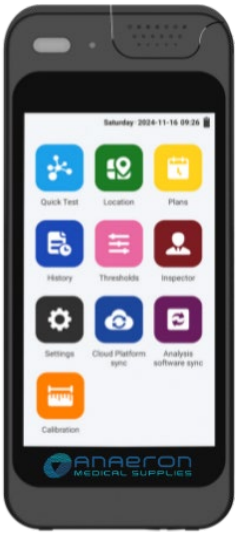
Storage and Validity

- 12 months validity – store at 2-8°C away from light
- 4 weeks validity – store at 20-25°C away from light

Disposal

CleanTrust™ TOTAL ATP Water Swabs are made from 100% recyclable plastic.

Applicable Instruments



- Anaeron YZ3500 CleanTrust™ Touch Luminometer

Also compatible with:

- Hygiena® SystemSURE Plus
- Hygiena® EnSURE Touch

Detection Sensitivity

10^{-16} mol

Operation Procedure

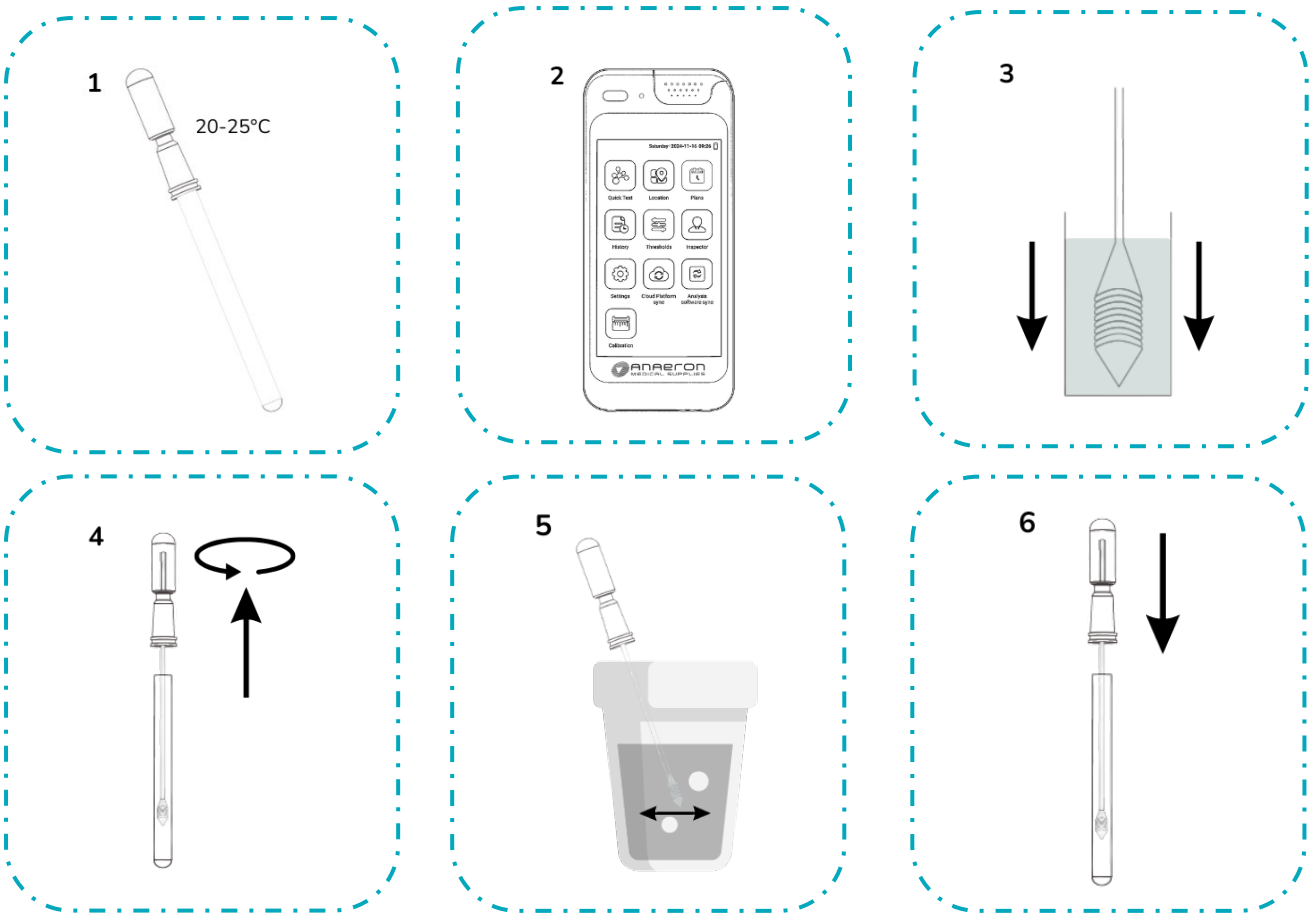
1. If CleanTrust™ TOTAL ATP Water Swabs are in refrigerated storage, first remove swab from refrigeration and allow to come to room temperature (approx. 20-25°C) before use.
2. Turn on the Anaeron YZ3500 CleanTrust™ Touch or other compatible luminometer.
3. Forcefully flick the swab in a downward motion to shake the liquid from the sample collection dipper to the bottom of the tube.

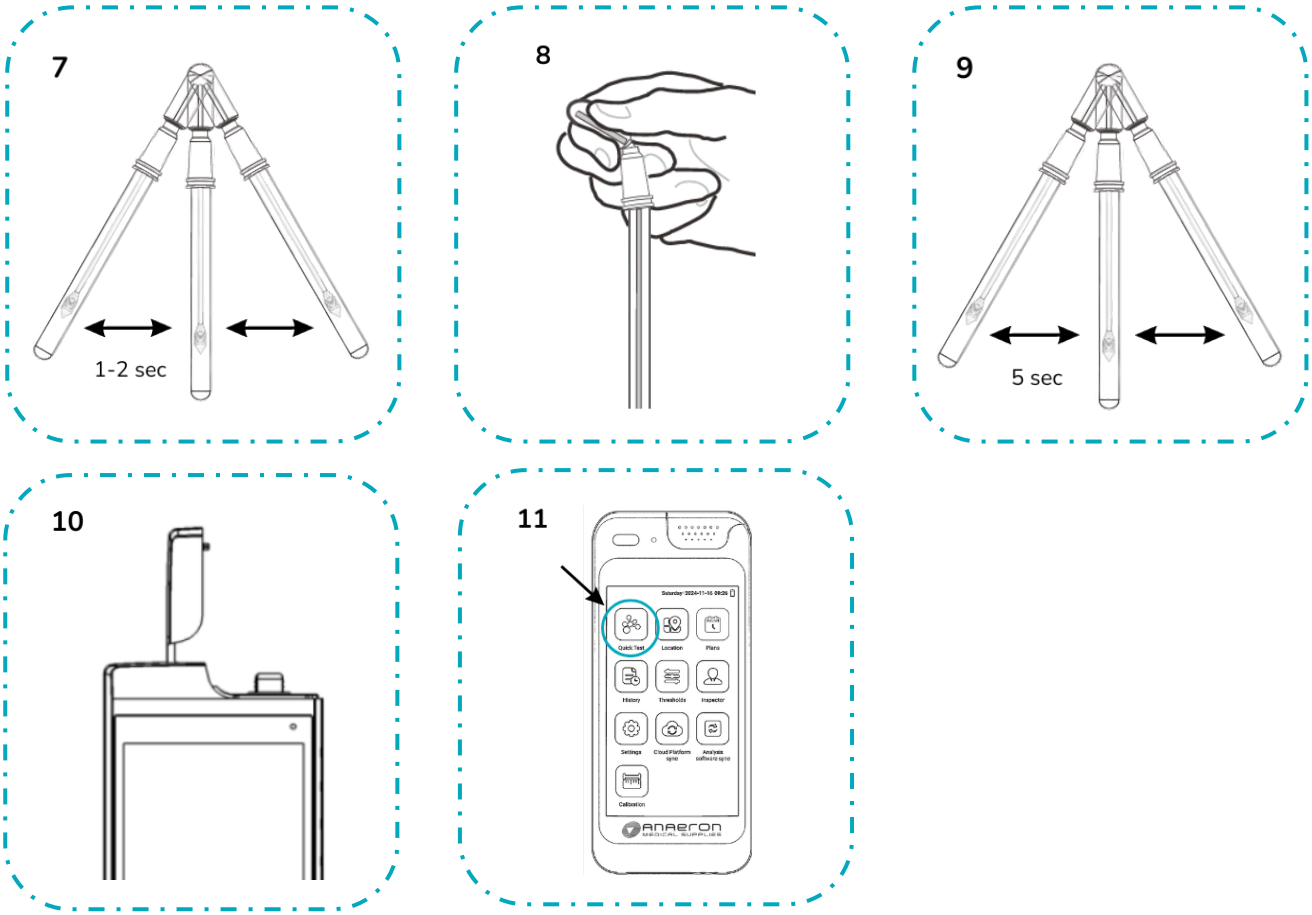
   Note: This is important for accurate extraction of ATP and helps with sample collection consistency.
4. Holding the swab firmly, twist and pull the top of the swab from the tube.

   Note: **Do not touch** the swab or inside the collection dipper with your fingers as this will contaminate the result.
5. Submerge the collection dipper in the water sample and shake until no bubbles are visible.

6. Lifting vertically, take the collection dipper out of the sample and reinsert it back into the swab tube.
7. Gently shake the swab for 1-2 seconds to mix the water sample with the liquid at the bottom of the tube.
8. Hold the swab tube firmly and break the top valve by bending the bulb forward and backward, then squeeze the bulb twice to expel all the liquid down the shaft to activate the swab.
9. Shake the swab back and forth for up to 5 seconds to bathe the swab in the liquid.

   Note: Once activated, the sample **must** be read by the luminometer **within 15 seconds.**
10. Holding the luminometer upright, quickly insert the entire CleanTrust$_{TM}$ TOTAL swab into the CleanTrust$_{TM}$ Touch luminometer (or another compatible device).
11. Keeping the luminometer upright, close the lid to the testing cabin and press the "Test" button to conduct the test. Test results will display on the screen within 10-15 seconds.





Result Judgement

Higher RLU results indicate higher contamination in the sample.

We strongly recommend setting RLU thresholds to meet your organisations protocols.

RLU thresholds may be adjusted within the Anaeron YZ3500 CleanTrust$_{TM}$ Touch device 'Thresholds' settings. For guidance, refer to the instructions for use for the Anaeron YZ3500 CleanTrust$_{TM}$ Touch luminometer, or your compatible device.

Revision History

REVISION	DATE	DESCRIPTION OF CHANGE
1	20-JUN-2025	Initial instructions