

Instruction Manual of ATP Test Swab

【Product Name】 ATP Test Swab

【Product Model】 Quickswab

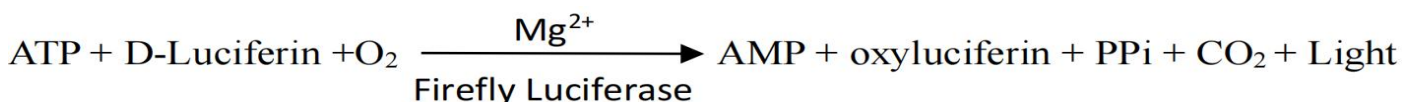
【Packing Strength】 5 pcs/bag, 20 pcs/bag

【Intended Use】 This product can be used with the ATP detector to measure cleanliness, indoor tableware, desktops, hand surfaces of operators, operating tables of medical and health industry, and medical speculums.

【Detection Principle】

Adenosine Triphosphate (ATP) is universally present in all biological cells. It is an energy substance for the metabolism of organisms and has special significance for the existence of organisms and the life process in the body. When the organism dies, ATP is quickly decomposed. In ATP bioluminescence assay, ATP reacts with luciferin-luciferase to generate photons, and then a fluorometer is used to detect the luminescence value to obtain the amount of ATP. Therefore, by measuring the amount of ATP in the sample, the content of microorganisms can be calculated, and the degree of contamination of the test article can be detected.

The ATP Test Swab is a rapid detection device based on the principle of ATP bioluminescence assay to determine the degree of microbial contamination in a sample. That is, in the presence of ATP, recombinant luciferase can catalyze the oxidation of the substrate D-luciferin and emit fluorescence. In addition to ATP, when other substrates are in excess, the number of photons and the amount of ATP have a linear relationship within a certain range.



【Structure of ATP Test Swab】



1. Protective cap 2. Spring cap 3. Connector 4. Integrated tube 5. Cotton swab

【Product Composition】

Component name	Strength/Unit	Number
ATP Test Swab	5 pcs/bag	5
	20 pcs/bag	20

【Storage & Shelf Life】 When stored at 2-8°C, it is valid for 12 months; when stored for a short time at room temperature (20-25°C), it is valid for 4 weeks. Keep it away from light and keep it sealed.

【Applicable instruments】 Tianlong ATP detector and equivalents.

【Instructions for use】

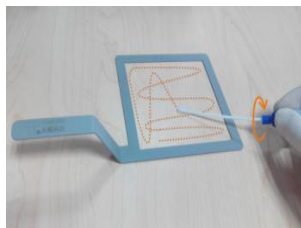
- Swab equilibrium: Take the ATP Test Swab out of the refrigerator and place it for about 10-20 minutes, allow it to equilibrate to room temperature.
- Cotton swab sampling: unscrew the integrated tube below the blue connector of the ATP Test Swab, use the cotton tip to sample in the test area, swab the cotton tip on the test surface at an angle of 15-30° in a "Z" shape (the swabbing area is about 10cm×10cm), please rotate the cotton swab during the swabbing process to make the cotton head fully contact with the test sample to ensure accurate test results.
- Installing the integrated tube: install the integrated tube removed in step 2 to the correct position of the ATP Test Swab (the mouth of the integrated tube is flush with the lower end of the blue connector).
- Injecting reagent: remove the protective cap from the upper end of the ATP Test Swab, hold the ATP Test Swab vertically in your hand, press the spring cap firmly, you can press it repeatedly to expel all liquid into the integrated tube, and shake the ATP Test Swab if necessary.
- Shaking and mixing: hold the spring cap on the upper part of the ATP Test Swab and shake it at 30° left and right (3

seconds) to make the reagent completely react with the sample.

6. Sample testing: quickly insert the ATP Test Swab into the test chamber of the ATP detector when the testing interface is on, close lid, and run the test.



1. ATP Test Swab equilibrium



2. Swab sampling



3. Installing integrated tube



4. Injecting reagent



5. Shaking and mixing



6. Sample testing

【Precautions】 Please read the precautions before using this product.

1. Disposable gloves should be worn during the experiment to avoid contamination of adventitious ATP.
2. Do not touch the cotton swab during sampling, make sure that the cotton swab only touches the surface of the test article.
3. After the sample on the ATP Test Swab reacts with the solution, place it in the ATP detector and read the value within 10 seconds.
4. The swabbing area in standard operation is 10×10 cm². For irregular surfaces, it's important to ensure that a continuous and consistent method is used for each test of each control point. The control points should be established taking into account of the special structure of individual objects, such as smoothness of the desktop, seams of the instrument, recessed area, cracks on the tableware (easy to hide dirt), etc.
5. This reagent detects the cleanliness of the surface of an object below the resolution of the naked eye. Therefore, if the control point to be tested has visible dirt or the head of the swab turns black after swabbing, the subsequent operations can be skipped to avoid wasting the ATP Test Swab.
6. If there is excess liquid on the surface of the test article, the test should be performed after the surface is somewhat dried to avoid diluting the reagent (no special drying is required).
7. If you need to test liquid, Tianlong ATP Water Test Swab is available for testing.

【Basic Information】

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