

What is ATP testing?

[ATP detection tools](#) test for a molecule called Adenosine triphosphate, or ATP. This molecule is only found in living cells, where it functions to convert the energy the cell needs to work, and is common to all known forms of life. That means if it's alive, it's got ATP, and an ATP test can be used to find places where fungi, mold, and bacteria are thriving before the evidence is visible to the naked eye. This makes ATP testing a powerful tool for cleaning crews and business owners alike.

The detection method for ATP relies on triggering and measuring bioluminescence (biological light) using an ATP luminometer. ATP reacts with the enzyme luciferase — the chemical that makes fireflies glow — and the amount of light it produces is directly proportional to the amount of ATP in the sample. By measuring the light using an ATP bioluminescence assay kit, we can calculate the amount of biological material in any given area.

How does it work?

ATP testing kits come in two parts: a handheld assay reader, and a disposable swab with a reagent solution that usually looks something like a pen. The tester removes the swab wand from the solution and smears it across the testing area to collect any microbes that may be present. The swab is then reinserted into the reagent solution and the tube is connected to the assay reader. The reader then performs the bioluminescence test with luciferase and measures the results. Most readers can display the results directly, as well as save digital records of the readings they produce. The majority of ATP tests take about 15 seconds to read and analyze the sample material.