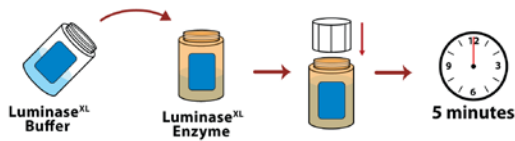


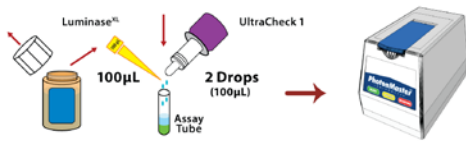
REHYDRATING LUMINASE

- Gently mix the buffer and **Luminase^{XL}** enzyme.
- Wait 5 minutes for solution to dissolve.



1. ULTRACHECK CALIBRATION (RLU_{ATP1})

- Hold the UltraCheck1 bottle vertical, **add 2 drops** (100µL) of **UltraCheck1** to a 12x55mm test tube.
- Pipet 100µL of **Luminase^{XL}** into the tube.
- Swirl the tube and take reading within 10 seconds.

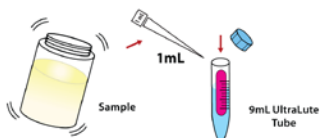


* If $RLU_{ATP1} \leq 50,000$ rehydrate a new bottle of Luminase^{XL}.

2. TOTAL ATP ANALYSIS (RLU_{tATP})

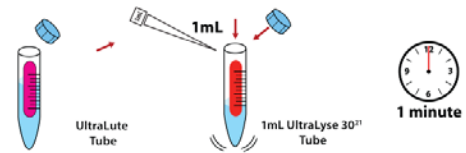
2.1 PRE-DILUTION

- Mix sample well.
- Add 1mL to a **9mL UltraLute (Dilution) Tube**.



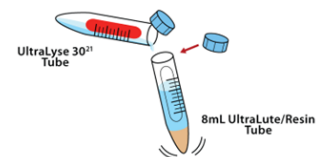
2.2 EXTRACTION

- Using a new pipet tip, add 1 mL of pre-diluted sample from the **UltraLute (Dilution) Tube** to a new **1mL UltraLyse 30²¹ (Extraction) Tube**.
- Cap and invert to mix, allow 1 min for extraction.



2.3 DILUTION

- Pour the **UltraLyse 30²¹ (Extraction) Tube** contents into an **8mL UltraLute/Resin (Dilution) Tube**.
- Transfer the mixture back and forth between the two tubes at least 3 times to mix well.
- Allow the beads to settle.



2.4 – ASSAY

- Add 100µL of the **UltraLute (Dilution) solution** to a 12x55mm test tube.
- Use a new pipet tip to add 100µL of **Luminase^{XL}**.
- Swirl the tube and take reading within 10 seconds.



CALCULATIONS

To automatically calculate ATP, use **LuminUltra Cloud**.

Total ATP (**tATP**) represents all ATP contained within living cells as well as free ATP.

$$tATP (pg\ ATP/mL) = \frac{RLU_{tATP}}{RLU_{ATP1}} \times 100,000 (pg\ ATP / mL)$$

Data Interpretation Guidelines

Application	Good Control (pg tATP/mL)	Preventive Action (pg tATP/mL)	Corrective Action (pg tATP/mL)
Product Quality Control (Paints, Coatings, Slurries)	<100	100 to 1,000	>1,000