

ATP GLOW-Juice SMALL KIT (1 02 550)

Components included:

ATP Glow-Juice	5 x 10ml Buffer for Screening ATP concentrations – without substrate and luciferase. Store at +4°C.
D-Luciferin	5 x 1 vial → Substrate for 10 ml ATP-Glow Juice p. a. free acid, firefly (synth.). Store at -20°C.
Luciferase	1 vial (50 µl) → Enzyme for 5 x 10 ml ATP-Glow Juice Firefly (Photinus Lampyris Luciferase) Store at +4°C.
ATP Standard	1 vial (5 ml). Concentration: 10 µM. Store at -20°C.
ATP free water	1 bottle (25 ml). Store at -20°C.

Handling:

It is very important to use clean equipment and wear gloves to prevent contamination by trace amounts of ATP present in fingerprints, glassware (for example with Natriumhypochlorid). Such contamination will cause high background level.

Reconstruction:

The D-Luciferin has to be dissolved and mixed into the buffer by shaking gently. This mixture can be store at -20°C for at least 30 days (without the luciferase). The Luciferase has to be added to this mixture at room temperature just before measuring in the ratio 1:1.000 (1 µl Luciferase in 1 ml buffer). Please use the finished buffer immediately and do not store this mixture after adding the luciferase. To prepare an ATP standard curve please use the ATP standard solution (10 µM) and dilute the following concentration series within the ATP free water. Measure the ATP standards in the same way like your samples.

Preparation of Cell Lysates:

ATP Glow-Juice includes detergent for cell lysis. For a proper cell lysis please wait at least 5 min before measurement after adding the buffer to the cells. For every cell type the specific time for a complete lysis has to figure out by the user.

ATP GLOW-Juice SMALL KIT (1 02 550)

Standard Protocol:

Program Luminometer:

For the measuring we suggest measurement duration of 5 sec. The samples can be measured between 5 to 300 minutes with a stable signal (dependent on a complete cell lysis!!!). The half-time life of the luminescent signal is 2,5 hours.

It is very important to define the background of the Assay before measuring samples!!! Because of easy ATP contaminations in tubes, pipette tips, instruments etc. the background has to be figured out before every screening.

- 1.) At first transfer 20µl cell culture/enzyme solution (**or blank!**) into your luminometer tube / well.
- 2.) After that add 100 µl of the ready-to-use ATP Glow-Juice (with substrate and luciferase) at room temperature.
- 3.) Start the measurement (5 sec duration) after 5 - 300 min.

Standard procedure:

Program Luminometer
(measurement duration 5 sec)

