

(FOR RESEARCH USE ONLY. DO NOT USE IT IN CLINICAL DIAGNOSIS !)

Catalog No: E-BC-F200

Specification: 48T/96T

Measuring instrument: Chemiluminescence immunoassay analyzer

Elabscience® Cell Viability Chemiluminescence Assay Kit

This manual must be read attentively and completely before using this product.
If you have any problem, please contact our Technical Service Center for help:

Toll-free: 1-888-852-8623

Tell: 1-832-243-6086

Fax: 1-832-243-6017

Email: techsupport@elabscience.com

Website: www.elabscience.com

Please kindly provide us the lot number (on the outside of the box) of the kit for more efficient service.

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Intended use

This kit is suitable for evaluating cell viability during the cell culture process.

Detection principle

Cell viability can reflect the proportion of healthy cells in a cell population. By detecting cell viability, the number of living cells or metabolically active cells in the population can be reflected, and the response of cells to various treatments and stimuli can be further evaluated.

This kit generates yellowish-green light through the oxidation reaction between luciferin, luciferase and ATP released by lysed cells. The ATP content is detected by a chemiluminescence instrument to analyze cell activity and proliferation.

Kit components & storage

Item	Component	Size 1(48 T)	Size 2(96 T)	Storage
Reagent 1	Buffer Solution	7 mL × 1 vial	14 mL × 1 vial	-20°C, 12 months
Reagent 2	Substrate	Powder × 2 vials	Powder × 4 vials	-20°C, 12 months shading light
	Black Clear-bottom Microplate	96 wells		No requirement
	Plate Sealer	2 pieces		

Note: The reagents must be stored strictly according to the preservation conditions in the above table. The reagents in different kits cannot be mixed with each other. For a small volume of reagents, please centrifuge before use, so as not to obtain sufficient amount of reagents.

Materials prepared by users

Instruments:

Chemiluminescence immunoassay analyzer, multifunctional microplate reader (with chemiluminescence)

Reagent preparation

① Equilibrate all reagents to 25°C before use.

② The preparation of working solution:

Dissolve one vial of substrate with 3 mL of buffer solution, mix well to dissolve. Aliquoted storage at -20°C, and avoid repeated freeze/thaw cycles is advised.

Sample preparation

Sample treatment: Use 96-well plates suitable for chemiluminescence detection (the microplate provided with the kit can be used, but if you have your own microplate, choose a non-transparent microplate between Wells). Inoculate cells into each well (the number of cells in each well should not exceed 5×10^4). According to actual needs, set up sample groups (cell Wells with added drugs), control groups (without added drugs but containing cells), and negative control groups (including culture medium without cells).

The key points of the assay

The working solution must be balanced to 25°C before use. Low temperatures will affect the measured values.

Operating steps

- ① Take out the cell culture plate and balance it at 25°C for 10 minutes.
- ② Add 100 μL of working solution to each well and immediately measure the luminescence value of each well on a chemiluminescence analyzer, as L.

Appendix I Performance Characteristics

1. Parameter:

Intra-assay Precision

Three macrophages were assayed in replicates of 20 to determine precision within an assay. (CV = Coefficient of Variation)

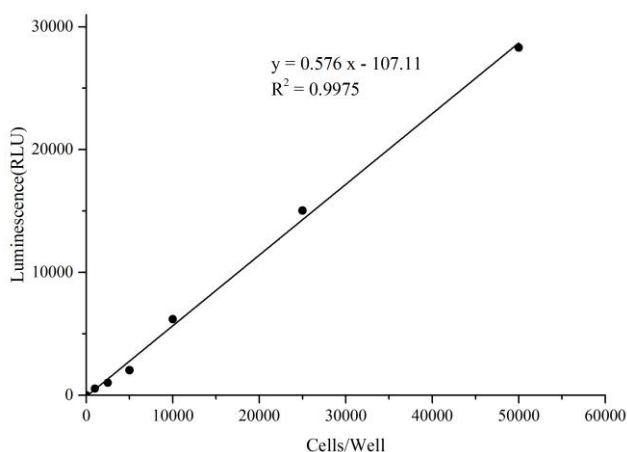
Parameters	Sample 1	Sample 2	Sample 3
Mean (Number of cells)	2500	5000	10000
%CV	1.5	2.5	3.5

Inter-assay Precision

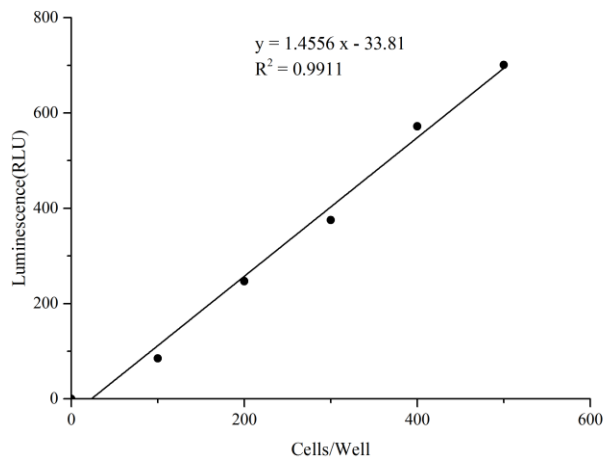
Three macrophages were assayed 20 times in duplicate by three operators to determine precision between assays.

Parameters	Sample 1	Sample 2	Sample 3
Mean (Number of cells)	2500	5000	10000
%CV	2.2	7.3	8.6

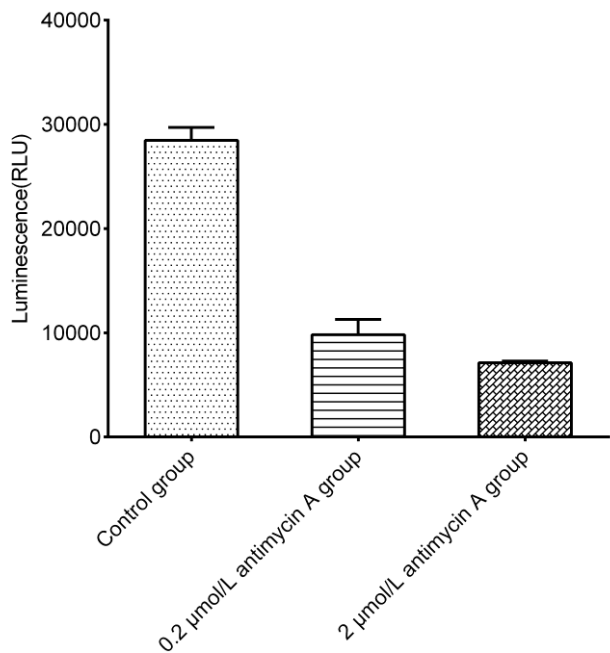
2. The 1000-50000 number of RAW-264.7 macrophages:



3. The 100-500 number of RAW-264.7 macrophages:



4. Comparison of the RAW-264.7 macrophage drug treatment group:



Statement

1. This assay kit is for Research Use Only. We will not response for any arising problems or legal responsibilities causing by using the kit for clinical diagnosis or other purpose.
2. Please read the instructions carefully and adjust the instruments before the experiments. Please follow the instructions strictly during the experiments.
3. Protection methods must be taken by wearing lab coat and latex gloves.
4. If the concentration of substance is not within the detection range exactly, an extra dilution or concentration should be taken for the sample.
5. It is recommended to take a pre-test if your sample is not listed in the instruction book.
6. The experimental results are closely related to the situation of reagents, operations, environment and so on. Elabscience will guarantee the quality of the kits only, and NOT be responsible for the sample consumption caused by using the assay kits. It is better to calculate the possible usage of sample and reserve sufficient samples before use.

