Genofax A 500

Reporter gene detection - Firefly luciferase

Product Data Sheet





Product Information

Reporter gene detection - Firefly luciferase

Reference: Genofax A 500

Storage Temperature: 2 years at 2-4°C for Firefly Buffer 1 year at -18°C for Luminescent Firefly (reconstituted or not)

Technical Bulletin & Protocol

Product Description

The Genofax A kit is used to reveal the reporter gene of Firefly luciferase. The revelation is obtained according to the principle of bioluminescence described below:

Firefly Luciferase

Luciferin + ATP + CoA + O₂ \longrightarrow Oxyluciferin + AMP + PPi + CO₂ + Photons Mg²⁺

The presence of coenzyme A (CoA) optimizes the stability and sensitivity of the reaction. The quantification of the light emitted is performed in a microplate or tube luminometer during a period of 5 to 10 seconds.

Under the conditions described below and with a suitable luminometer, the response of the Firefly reagent is linear between 10⁻¹⁹ and 10⁻¹⁴ moles of Firefly Luciferase.

Components

The kit is sufficient for 500 assays.

1 Firefly lucife	erase biolu	minescent re	agent (Luminesce	nt Firefly) (1,5	ml vial):	storage at -18°C.

1 Firefly Buffer solution (50 ml bottle): storage at 2 to 4°C.

Reagents and Equipment Required but Not Provided

Luminometer tube or microplate reader, vortex.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses.





Preparation Instructions

- 1. Reconstitute the vial of Luminescent Firefly reagent a few minutes in advance with 1 ml of Firefly Buffer. homogenize vigorously with vortex (30 sec) (after use, this solution can be stored at -18°C).
- 2. Prepare a stock of **Firefly Buffer** solution at the rate of 100 μ l of buffer solution per test. Add inside this stock the **Luminescent Firefly** reagent at a rate of 20 μ l per ml of Firefly Buffer solution, in order to reconstitute a **ready to use Firefly reagent**

Procedures

All samples and standards should be run in <u>duplicate or triplicate</u>.

Sample Preparation

Before the luminescent assay reaction, samples have to be lysed with adapted lysis solution.

Luminescent Assay Reaction

1. Add 20 μl of sample to well or tube.

2. Add 100 µl of **ready to use Firefly reagent** to sample well or tube.

3. Immediately measure the luminescence of sample well or tube (recommended measuring time: 1 to 5 seconds).

<u>Note:</u> Reagent background control (blank) is obtained by use of 20 μ l of non-transfected cell lysate or 20 μ l of the lysis solution used instead of sample.



Contact information

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