# 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 + O<sub>2</sub>  $\longrightarrow$  Oxyluciferin + AMP + PPi + CO<sub>2</sub> + Photons Mg<sup>2+</sup>

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<sup>-19</sup> and 10<sup>-14</sup> moles of Firefly Luciferase.

## **Components**

The kit is sufficient for 500 assays.

1 Firefly lucife	erase biolu	minescent re	agent ( <b>Luminesce</b>	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  $\mu$ l of buffer solution per test. Add inside this stock the **Luminescent Firefly** reagent at a rate of 20  $\mu$ 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  $\mu l$  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  $\mu$ l of non-transfected cell lysate or 20  $\mu$ l of the lysis solution used instead of sample.



# **Contact information**

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