

TransDetect[®] Single-Luciferase (Renilla) Reporter Assay Kit

Please read the data sheet carefully prior to use.

Cat. No. FR111

Version No. Version 2.0

Storage: The kit stored at -20°C for one year. Cell Lysis Buffer can be stored at -20°C for one year. Prepared Luciferase Reaction Reagent II should be stored in aliquots in dark at -20°C for one month or at -70°C for one year.

Description

Renilla luciferase catalyzes the oxidation of coelenterazine to form coelenteramide, and produces bioluminescence in the process. TransDetect[®] Single-Luciferase (*Renilla*) Reporter Assay Kit uses coelenterazine as a substrate to detect the activity of *Renilla* luciferase reporter gene. It has the characteristics of rapid detection, high sensitivity, wide detection range, and no interference of endogenous activity of cells.

Kit Contents

Component	FR111-01-V2 (50 rxns)	FR111-02-V2 (200 rxns)
Luciferase Reaction Buffer II	5 ml	20 ml
Luciferase Reaction Substrate II (50×)	100 µl	400 µl
Cell Lysis Buffer (5×)	5 ml	20 ml

Procedures

Self-prepared

Product Name	Catalogue
PBS(1×)	TransGen, Cat. FG701-01
Nuclease-free Water	TransGen, Cat. GI101-01

1. Reagent Preparation

(1) Luciferase Reaction Reagent II

Take out Luciferase Reaction Buffer II from -20°C and equilibrate to room temperature to ensure that all components are completely dissolved (Note: It is normal for Luciferase Reaction Buffer II to precipitate, and it can be used after sufficient shaking to dissolve). Mix Luciferase Reaction Substrate II with Luciferase Reaction Buffer II at a ratio of 1:49, and store in the dark after aliquoting to avoid repeated freezing and thawing.

(2) 1×Cell Lysis Buffer

Mix 5×Cell Lysis Buffer with Nuclease-free Water at a ratio of 1:4.

2. Lyse Cells

Remove the cell culture medium. Carefully rinse twice with 1×PBS, and add an appropriate amount of 1×Cell Lysis Buffer. Fully lyse at room temperature for 10 minutes. Scrape the cells into a 1.5 ml microcentrifuge tube, and centrifuge at 12,000×g at 2-8°C for 10 minutes. Take the supernatant (cell lysate) for use.

Cell Culture Plate	Lysis Buffer/Well
6-well	500 µl
12-well	250 µl
24-well	100 µl
48-well	60 µl
96-well	20 µl



3. Fluorescence Detection

Add 100 μ l of Luciferase Reaction Reagent II equilibrated to room temperature into a 1.5 ml microcentrifuge tube or opaque 96-well plate. Carefully pipette 20 μ l of cell lysate into the reaction tube or plate, and shake horizontally to mix. The activity of the Renilla luciferase reporter gene was detected in a luminometer.

Notes

- Luciferase Reaction Buffer II may be partially precipitated during the dissolution process. Before use, it should be fully shaken or placed in a 37°C water bath to ensure that it is completely dissolved before use.
- Equilibrate to room temperature before Luciferase Reaction Reagent II.
- To ensure the accuracy and reliability of the experimental data, it is recommended to add Luciferase Reaction Reagent II with the multichannel pipette when measuring a large number of samples. During use, be sure to pay attention to whether the liquid absorbed by each channel of the pipette is consistent.
- Luciferase Reaction Reagent II is prone to oxidation reaction. Please arrange the experiment reasonably to avoid long-term storage of samples at room temperature after thawing.

For research use only, not for clinical diagnosis.

Service telephone +86-10-57815020

Service email complaints@transgen.com

