

TransDetect® Single-Luciferase Reporter Assay Kit

Cat. No. FR101

Storage: at -20°C in dark for one year. Prepared luciferase assay reagent (Luciferase Reaction Reagent) should be stored in aliquots in dark at -20°C for one month or at -70°C for one year.

Description

Firefly luciferase has been widely used as a reporter for studying gene regulation and function in mammalian cells and tissues due to its sensitivity and the absence of endogenous luciferase activity in mammalian cells. Single-Luciferase Reporter Assay Kit is an improved version of conventional luciferase assay with high sensitivity, fast detection and broad range of detection.

Kit Contents

Component	FR101-01 (50 rxns)	FR101-02 (200 rxns)
Luciferase Reaction Buffer	5 ml	20 ml
Luciferase Reaction Substrate (Lyophilized)	1 vial	4 vials
Cell Lysis Buffer (5×)	5 ml	20 ml

Procedures

1. Prepare 1xCell Lysis Buffer

Add one volume of 5xCell Lysis Buffer to 4 volume of Nuclease-free Water. 1xCell Lysis Buffer can be stored at 2-8°C for 1 month.

2. Prepare Luciferase Reaction Reagent

Dissolve the lyophilized Luciferase Reaction Substratum (whole vial) by adding 5 ml of Luciferase Reaction Buffer to the vial. The prepared Luciferase Reaction Reagent should be used within one day.

3. Prepare Cell Lysate

- Wash cells twice with PBS and add 1xCell Lysis Buffer.

Well	Lysis Buffer / Well
6	500 µl
12	250 µl
24	100 µl
48	60 µl
96	20 µl

- Incubate at room temperature for 10 minutes. Scrape the cells. Centrifuge at 12,000×g for 10 minutes at 2-8°C. Transfer the supernatant (cell lysate) to a new tube.

4. Assay

Mix 20 µl of cell lysate with 100 µl of Luciferase Reaction Reagent. Place the tube in luminometer to measure luciferase. Record the data.

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