

Renilla Luciferase Assay Kit

Cat. No. Kit-0529 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Renilla Luciferase Assay Kit is designed to provide a simple and sensitive method of detecting Renilla luciferase. Through the use of a specially designed buffer formulation, this assay kit yields reliable, linear results with minimal autoluminescence background and superior sensitivity.

Size

50 assays, 150 assays, 1,000 assays

Description

Renilla luciferase has been used as a reporter gene for studying gene regulation and function in vitro and in vivo. Recently, Renilla luciferase has been widely used in multiplex transcriptional reporter assays or as a normalizing transfection control for Firefly luciferase assay. Renilla luciferase, a monomeric 36,000 Dalton protein, catalyzes coelenterazine oxidation by oxygen to produce light. The enzyme does not require post-translational modification for its activity, and may function as a genetic reporter immediately following translation. Coelenterazine native is the natural substrate for Renilla luciferase. Coelenterazine also emits light from enzyme-independent oxidation, a process known as autoluminescence. The autoluminescence is enhanced by superoxide anion and peroxynitrite in cells and tissues.

Storage

Store the kit at -20°C or below. The components of the kit are Stable at -20°C for three months and at -70°C for at least 6 months from date of receipt. Avoid repeated freeze-thaw cycles. Aliquot Renilla luciferase assay buffer and enhancer for storage if necessary. Renilla luciferase working solution (assay buffer + coelenterazine) should be prepared fresh for each use and used within 2 hours for best results.

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Kit Components

Component (50 assays): 5X Passive Lysis Buffer: 5 mL; Renilla Luciferase Assay Buffer: 5 mL; Renilla Luciferase Enhancer: 5 mL; Coelenterazine (lyophilized): 1 vial (50 ug); Component (150 assays): 5X Passive Lysis Buffer: 10 mL; Renilla Luciferase Assay Buffer: 10 mL; Renilla Luciferase Enhancer: 10 mL; Coelenterazine (lyophilized): 3 vials (50 ug); Component (1000 assays): 5X Passive Lysis Buffer: 30 mL; Renilla Luciferase Assay Buffer: 50 mL; Renilla Luciferase Enhancer: 50 mL; Coelenterazine (lyophilized): 4 vials (250 ug); Note: Sufficient passive lysis buffer is provided to perform the stated number of assays with cells grown in 96-24 well plates. For applications requiring more lysis buffer (e.g. >100 uL/well), additional 5X passive lysis buffer may be purchased separately.

Features & Benefits

Sensitivity and Linearity: Linear correlation between luciferase gene expression and light output. Convenience: Conveniently packaged substrate sizes permitting you to run a variable number of assays.

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