# Renilla Luciferase Assay Kit

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

## SPECIFICATION

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| **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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