

Product datasheet for **PR300007**

Renilla luciferase assay kit, 1000 assays

Product data:

Product Type: Luciferase Assay Kits

Description: Renilla luciferase assay kit, 1000 assays

Components:

- 5X Passive Lysis Buffer (30 mL)
- Renilla Luciferase Assay Buffer 2.0 (100 mL)
- Aquaphile Coelenterazine (1 X 4 mg)

Features:

- Highly sensitive & linear flash-type RLuc assay
- Easy-to-handle water-soluble substrates
- Excellent performance & great value compared to other suppliers

Assay Type: Luminescence (flash-type), Endpoint assay

Detection Method: Luminometer (single-tube or microplate reader with reagent injectors)

Summary: This Renilla luciferase assay kit is designed to measure Renilla luciferase (RLuc) activity in transfected cell reporter gene assays. This kit utilizes a special buffer formulation designed to yield reliable, linear measurements of Renilla luciferase activity with minimal autoluminescence background and superior sensitivity. The substrate included in the kit is a water soluble substrate, aquaphile Coelenterazine, which can be stored at -20°C with minimal evaporation, unlike methanol solutions of coelenterazine. The stated number of assays is based on 96-well assay format. The kits include enough Passive Lysis Buffer to perform the stated number of assays in plate sizes ranging from 96-well to 24-well. If needed, additional 5X Passive Lysis Buffer (Cat# PR300004) can be purchased separately.

Note: This kit is a flash-type luminescence assay, which requires luminescence to be measured immediately after adding reagents to your sample.



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Background: Renilla luciferase has been used as a reporter gene for studying gene regulation and function in vitro and in vivo. It commonly is used in multiplex transcriptional reporter assays or as a normalizing transfection control for firefly luciferase assays. 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 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. This assay kit utilizes a special buffer formulation designed to yield reliable, linear measurements of Renilla luciferase activity with minimal autoluminescence background and superior sensitivity.

Storage: Store at -80°C.

Stability: Renilla Luciferase Assay Buffer 2.0 is stable at -80°C for at least six months from date of receipt. Other kit components are stable at -20°C for at least six months from date of receipt. Kit components and stock solutions of Aquaphile coelenterazine in water are stable to at least 5 freeze/thaw cycles.