Secrete-Pair™ Dual Luminescence Assay Kit

Overview

Secrete-Pair™ Dual Luminescence Assay Kit is designed to analyze the activities of *Gaussia* Luciferase (GLuc) and Secreted Alkaline Phosphatase (SEAP) of a dual-reporter system side-by-side using the same sample from the cell culture medium. Both GLuc and SEAP are secreted reporter proteins. Samples can be easily obtained from cell culture medium without lysis of the cells.

Two buffer conditions are provided in the kit for GLuc assays depending on the applications. Buffer GL-S contains a stabilizer and can be used for stabilized activity by overcoming the quick decay of the GLuc signal. When higher sensitivity is required for detecting low expression of GLuc, Buffer GL-H can be used for higher enzyme activity.

Secrete-Pair measures dual reporter signals and allows transfection normalization. The normalized GLuc activities can be compared across samples free of the impact of transfection variation.

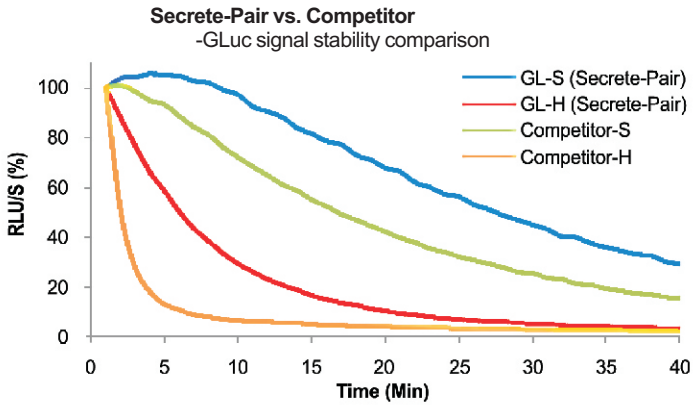


Figure 1. Comparison of GLuc signal stability in different buffer systems from Secrete-Pair and a competitor *Gaussia* luciferase assay kit.
Cell culture medium was collected from cells transfected with humanized GLuc reporter clones. 10 µl of the medium was used in each assay. Two buffer systems of each kit were tested and the assays were performed according to the manufacturer protocols. The percentage of signal retained (Y axis) is used as an indicator for signal stability. For both kits, the GLuc activities in buffers with a stabilizer (-S) are much more stable than those in buffers without a stabilizer (-H). However, when compared side-by-side, Secrete-Pair buffer systems provide more stable GLuc signal than the competitor kit.

Advantages

Live cell assays

- Secreted GLuc and SEAP
- Lysis of the cells is not necessary

Robust and flexible conditions

- Buffer for stable activity extends the half-life of light emission to approximately 30 minutes
- Buffer for higher sensitivity can be used to detect low GLuc expression

Dual-reporter detection

- Detects GLuc and SEAP
- Enables transfection-normalization for true cross-sample comparison

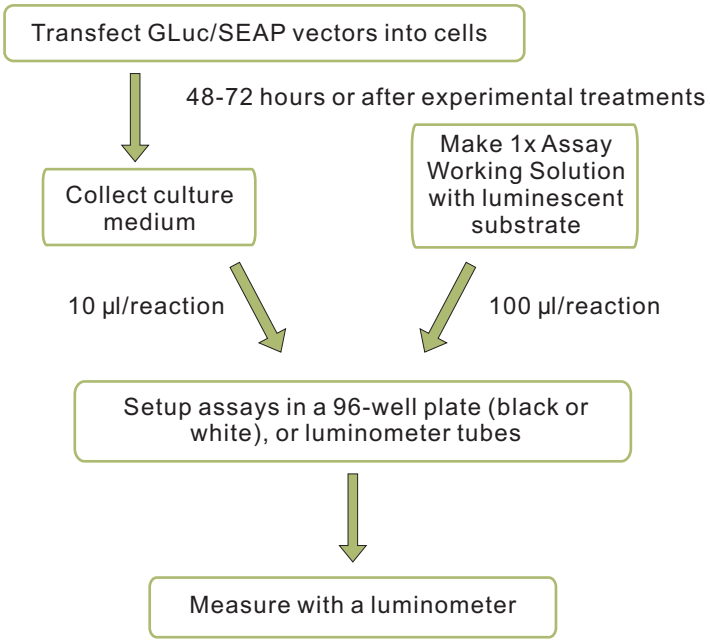
High-throughput compatible

- Quick and easy assay format
- High sample number compatible

GeneCopoeia™
Expressway to Discovery

Secrete-Pair™ Dual Luminescence Assay Kit

Protocol overview



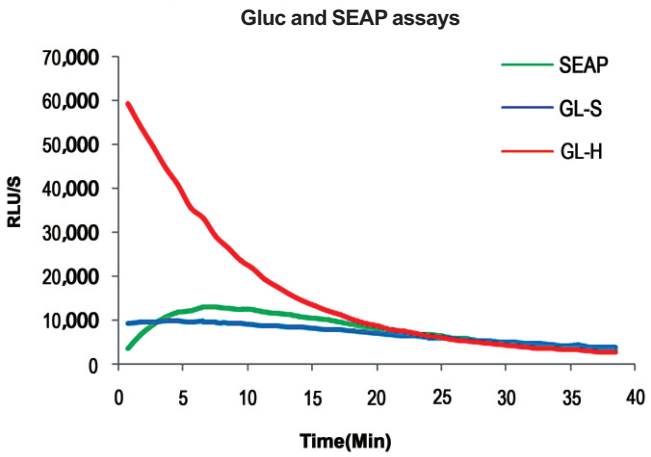


Figure 2. GLuc and SEAP assays.
Cell culture medium was collected from cells transfected with GLuc-SEAP dual-reporter clone. 10 µl of the medium was used in each assay. At the beginning, the GLuc activity in Buffer GL-H is about 3-5 times higher than that in Buffer GL-S. Then it quickly decays. The GLuc activity in Buffer GL-S, however, is much more stable. The amount of SEAP substrate was adjusted so that the reading of SEAP and that of GLuc (in buffer GL-S) are at similar levels for normalization purpose.

To order

Secrete-Pair™ Dual Luminescence Assay Kit
Cat. No. SPDA-D010 (100 reactions)
Cat. No. SPDA-D100 (1000 reactions)

Secrete-Pair™ *Gaussia* Luciferase Assay Kit
Cat. No. SPGA-G010 (100 reactions)
Cat. No. SPGA-G100 (1000 reactions)

Related Products

- GLuc-ON™ Promoter Reporter Clones
- GLuc-ON™ SEAP Expression Clone
- miTarget™ miRNA 3'UTR Target Clones

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