

## Highly Stable Luciferase/Luciferin Reagent (#BN01003)

(Cat # BN01003 -100, -1000, -10000, Store at -80°C)

### I. Introduction:

Assay Genie's Highly Stable Luciferase/Luciferin Reagent utilizes a genetically modified variant derived from the Luciferase of *Diaphanes pectinealis* (Chinese Firefly) endemic to Yunnan province, China. Assay Genie's luciferase (rLucHS) has been modified to provide enhanced stability compared to the normal phenotype of *Photinus pyralis*, as well as a broader and more physiologically relevant effective pH range. At all pHs below ~ 8.2, rLucHS is significantly more active than commercial *Photinus pyralis* luciferase and is stable for weeks at room temperature and > 60 min at 37°C. The specific activity of rLucHS is ~ 5 x 10<sup>11</sup> RLU/mg protein. This reagent has application to measure ATP levels in a wide variety of biological samples such as cells, tissues and fermentation broth, etc.

### II. Components:

Component	BN01003- -100	BN01003 -1000	BN01003 -10000	Cap Code	Part Number
Reconstitution Buffer rLucHS Reagent Mix	1.2 ml 1 vial	12 ml 1 vial	120 ml 1 vial	Clear Green	BN01003-1 BN01003-2

### III. Storage and Handling:

- Store vials at -80°C, protected from light; good for 1 year.

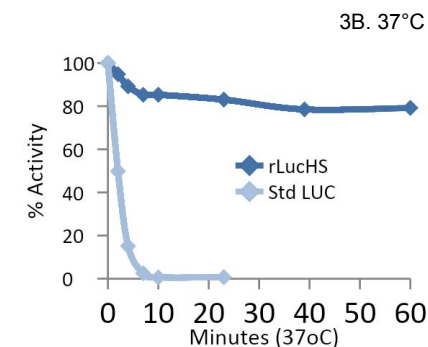
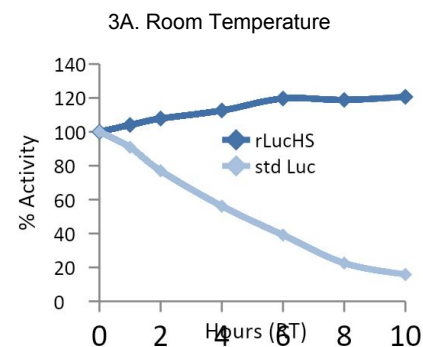
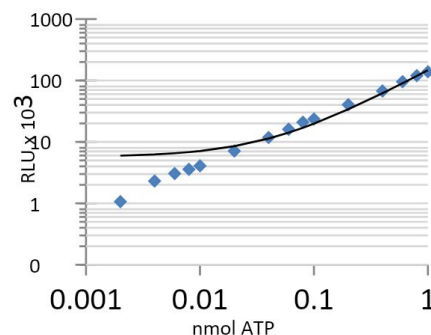
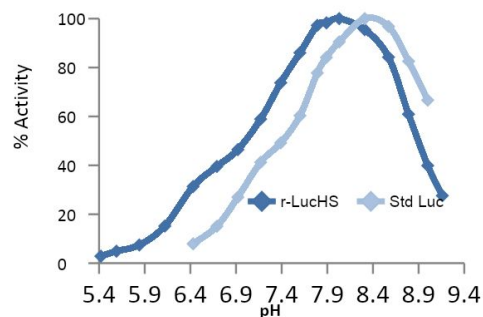
### IV. Highly Stable Luciferase/Luciferin Reagent Preparation:

- Reconstitute rLucHS Reagent Mix with 1.1 ml Reconstitution Buffer. The reconstituted reagent can be used for ATP assay or potentially other assays. The reagents can be stored at 4°C for 2 months. For a detail ATP assay protocol, please refer to Assay Genie's Cat. # BN01006).

### V. Selected Properties of rLucHS:

1. pH vs. Activity  
Curves for ATP (log/log)

2. Standard



3. rLucHS Stability at RT (3A) and 37°C (3B) vs. Standard Commercial Luciferase

**FOR RESEARCH USE ONLY! Not to be used on humans.**