biotium Glowing products for science

Call us : 800-304-5357

Steady-Luc™ Firefly HTS Assay Kit (Lyophilized)



A homogeneous firefly luciferase reporter gene assay kit with a luminescence half-life of about 3 hours, allowing batch processing in microplates. The assay buffer is provided in lyophilized format for convenient room temperature shipping and -20°C storage.

Product attributes

Assay type/options	High-throughput assay, Homogeneous assay, Luminescence (glow-type)
Detection method/readout	Microplate reader (luminescence)
Storage Conditions	Store at -10 to -35 °C

Product Description

The Steady-Luc™ HTS assay system is a homogeneous, high-sensitivity firefly luciferase reporter gene assay kit. It is a glow-type assay with signal half-life of about 3 hours, allowing batch processing in microplates.

Firefly luciferase is widely used as a reporter for studying gene regulation and function, and for pharmaceutical screening. It is a very sensitive genetic reporter due to the lack of endogenous activity in mammalian cells or tissues. However, the light production resulting from the reaction leads to formation of suicidal adenyl-oxyluciferin at the enzyme surface. It results in very short half-life of the light emission with a flash-type kinetics. Because of this, flash-type luminescence must be detected immediately after initiating the reaction, which is not compatible with batch analysis of samples.

Biotium's Steady-Luc™ Firefly Assay Buffer contains a proprietary mixture of substances that prevent the adenyl-oxyluciferin reaction, producing a long lasting, glow-type signal. It produces luminescence signal with a half-life of about 3 hours, for a high-throughput microplate assay.

Glow-type luciferase assays like Steady-Luc™ have lower luminescence signal compared to flash-type assays. The sensitivity and limit of detection of the assay will depend on luciferase expression levels in your experimental system as well as luminometer sensitivity.

This product is comparable to our original Steady-Luc™ HTS Assay (catalog no. 30028), but with lyophilized assay buffer for economical room temperature shipping and convenient storage at -20°C. Simply dissolve the lyophilized assay buffer in the supplied reconstitution buffer before use.

More Luciferase Kits & Related Products

Biotium Cat. No.	Product	Description	Promega Assay	Promega Cat. No.
30138	Steady-ATP™ HTS Viability Assay Kit	Highly sensitive ATP-based cell luminescent viability assay with signal half-life of 5 hours for high-throughput screening in multi-well plates.	CellTiter-Glo® Luminescent Cell Viability Assay	G7570, G7571, G7572, G7573
30085	Firefly Luciferase Assay Kit 2.0	Flash-type firefly luciferase assay kit.	Firefly Luciferase Assay System	E1483, E1500, E1501, E4030, E4530, E4550
30075	Firefly Luciferase Assay Kit (Lyophilized)	Firefly luciferase assay kit with lyophilized assay buffer for economical room temperature shipping and convenient storage at -20°C.		
30028	Steady-Luc™ Firefly HTS Assay Kit	Glow-type firefly luciferase assay with signal half-life of about 3 hours for high-throughput screening in multi-well plates.	Steady-Glo® Assay System	E2510, E2520, E2550
30028L	Steady-Luc Firefly HTS Assay Kit (Lyophilized)	Steady-Luc kit with lyophilized assay buffer for economical room temperature shipping and convenient storage at -20°C.		
30082	Renilla Luciferase Assay Kit 2.0	Flash-type Renilla luciferase assay kit.	*Renilla* Luciferase Assay System	E2810, E2820
30081	Firefly and Renilla Luciferase Single Tube Assay Kit	Assay kit for measuring firefly and Renilla activities sequentially in the same sample in a single tube.	Dual-Luciferase® Assay System (Firefly & *Renilla*)	E1910, E1960, E1980

References

1. Pharm Res (2010) 27(12), 2528-43. DOI: 10.1007/s11095-010-0256-x
2. ACS Synth Biol (2017) 6(3), 428−438. doi:10.1021/acssynbio.5b00299
3. bioRxiv (2018) doi: https://doi.org/10.1101/228601
4. Environ Health (2019) 18, 45. https://doi.org/10.1186/s12940-019-0486-2 (lyophilized format)
5. APL Bioengineering (2020) 4, 016102. https://doi.org/10.1063/1.5127302

This datasheet was generated on November 7, 2026 at 08:24:11 PM. Visit product page to check for updated information before use.
Product link: https://biotium-woo.supremeclients.com/product/steady-luc-firefly-hts-assay-kit-lyophilized/