

## **Data Sheet**

### ***Firefly Luciferase Lentivirus (G418)***

**Catalog #: 79692-G**

#### **Product Description**

The Firefly Luciferase Lentivirus are replication incompetent, HIV-based, VSV-G pseudotyped lentiviral particles that are ready to be transduced into almost all types mammalian cells, including primary and non-dividing cells. These viruses constitutively express firefly luciferase under a CMV promoter (Figure 1).

#### **Application**

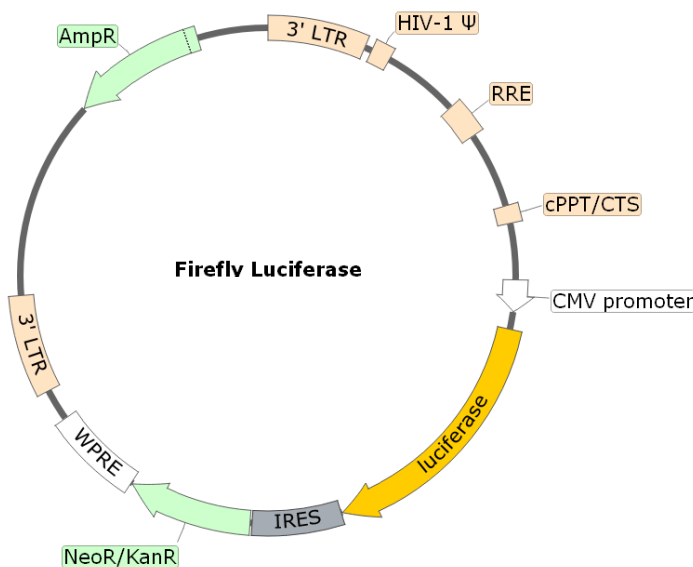
Ideal as a positive control for transduction; useful for transduction optimization.

#### **Formulation**

The lentiviruses were produced from HEK293T cells. Supplied in medium containing 90% DMEM + 10% FBS.

#### **Titer**

Two vials (500  $\mu$ l x 2) of firefly luciferase lentivirus at a titer  $\geq 5 \times 10^6$  TU/ml. The titer will vary with each lot; the exact value is provided with each shipment.



**Figure 1. Schematic of the lenti-vector used to generate the firefly luciferase lentivirus**

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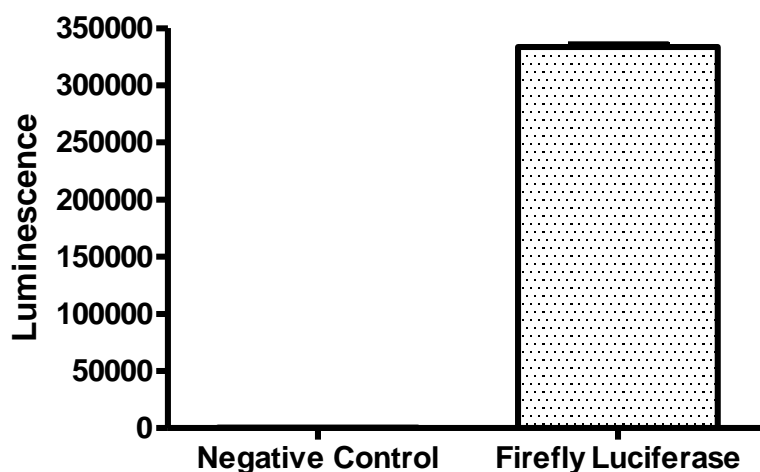
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### Storage

Lentiviruses are shipped with dry ice. For long term storage, it is recommended to store the virus at -80°C. Avoid repeated freeze-thaw cycles. Titers can drop significantly with each freeze-thaw cycle.

### Biosafety

None of the HIV genes (gag, pol, rev) will be expressed in the transduced cells, as they are expressed from packaging plasmids lacking the packing signal. Although the pseudotyped lentiviruses are replication-incompetent, they require the use of a Biosafety Level 2 facility. BPS recommends following all local federal, state, and institutional regulations and using all appropriate safety precautions.



### Figure 2. Luciferase activity in Jurkat cells transduced with firefly luciferase lentivirus.

Approximately 20,000 Jurkat cells/well were transduced with 200,000 TU/well firefly luciferase lentivirus or negative control lentivirus (BPS Bioscience #79578) using spinoculation. After 66 hours of transduction, medium was changed to Jurkat growth medium. The luciferase assay was performed using the ONE-Step™ Luciferase assay system (BPS Bioscience, #60690), following the recommended protocol in the user manual. The results are shown as the raw luminescence reading.

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## Related Products

<b><u>Product</u></b>	<b><u>Cat. #</u></b>	<b><u>Size</u></b>
NF- $\kappa$ B Luciferase Reporter Lentivirus	79564	500 $\mu$ l x2
CRE Luciferase Reporter Lentivirus	79580	500 $\mu$ l x2
NFAT Luciferase Reporter Lentivirus	79579	500 $\mu$ l x2
Reporter Negative Control Lentivirus (Firefly Luciferase)	79578	500 $\mu$ l x2
Firefly Luciferase Lentivirus (Hyg)	79692-H	500 $\mu$ l x2
GFP Lentivirus	79703	1 ml x2
ONE-Step™ Luciferase Assay System	60690-1	10 ml
ONE-Step™ Luciferase Assay System	60690-2	100 ml
Dual Luciferase (Firefly-Renilla) Assay System	60683	10 ml

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