

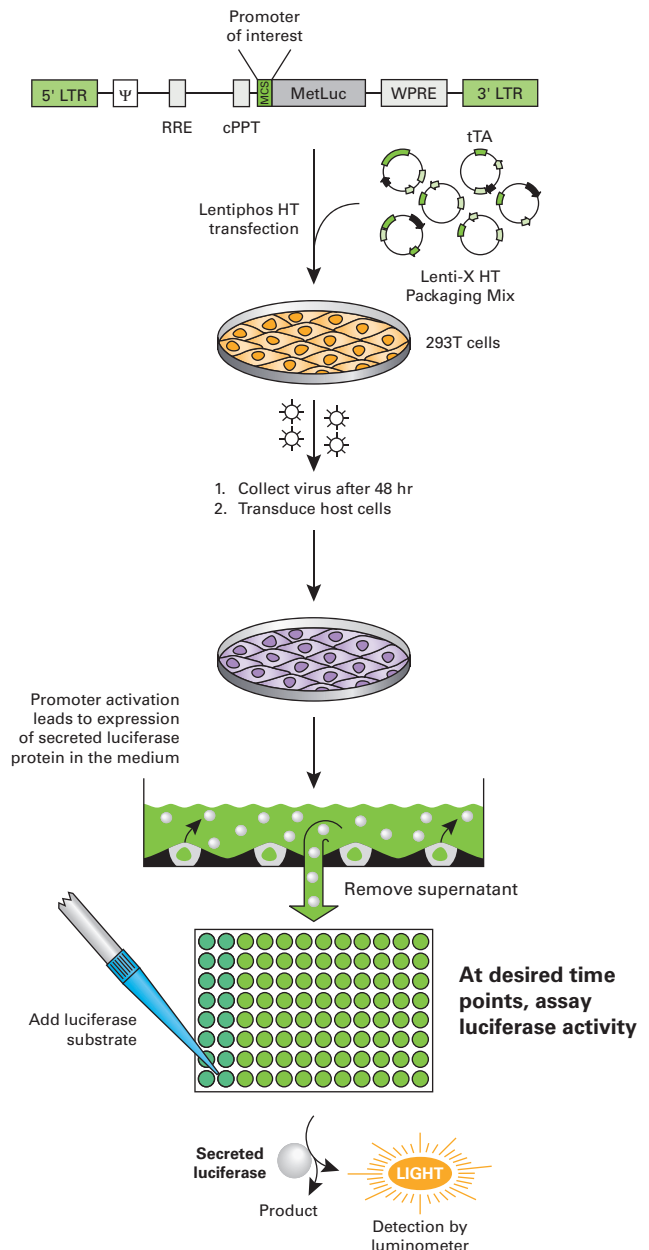
Live Cell Reporters, Now with Lentiviral Delivery

- Optimized for high titers
- Choose chemiluminescent or fluorescent reporters
- Measure promoter activity on demand
- Get more data points per experiment

Clontech's **Lenti-X™ Reporter Systems** allow you to study your promoter of interest with a chemiluminescent or fluorescent on-demand reporter in virtually any cell type, including primary cultures, dividing and nondividing cells, stem cells, terminally differentiated cells, and neuronal cells. These are complete systems, which include our advanced 4th-generation packaging systems and lentivirus transfection system, plus your vector of choice (1; Figure 1). They deliver excellent signal-to-noise ratios by excluding reporter molecules that are expressed prior to the experiment (Figure 2) and allow you to monitor promoter activity at any time point and for any length of time that you choose. Because there is no cell lysis, you can observe multiple promoter activation cycles using the same cells.

Table 1: How Do I Choose My Reporter System?		
	Lenti-X Ready-To-Glow Secreted Luciferase Reporter System	Lenti-X DD Fluorescent Protein ¹ Reporter Systems
Chemiluminescent detection (plate reader)	✓	
Fluorescent detection (flow cytometry, fluorescence microscopy)		✓
Automatable	✓	✓
License required for For-Profit organizations		✓

¹ AmCyan1, ZsGreen1, or tdTomato



Flowchart of the Lenti-X Ready-To-Glow Secreted Luciferase Reporter System protocol.

Don't Miss Transient Activity

The **Lenti-X Ready-To-Glow™ Secreted Luciferase Reporter System** is based on a secreted reporter, *Metridia* luciferase, which exhibits superior performance compared to traditional cytosolic luciferase reporters. Secreted luciferases are not degraded like cytosolic luciferase reporters, so you can monitor intermittent short bursts of promoter activity that you might have missed previously. In addition, *Metridia* luciferase has higher sensitivity than *Renilla* or firefly luciferases (2). To remove background, just “wash out” any reporter molecules synthesized prior to your experiment with a simple media change. Then activate the promoter and monitor its activity by sampling the accumulated stable reporter from the media.

Measure Activity on Demand

The **Lenti-X DD Fluorescent Protein Reporter Systems** combine a bright fluorescent protein reporter for high signal intensity with ProteoTuner™ technology to eliminate background (3). Ligand-dependent, on-demand stabilization of the fluorescent reporter allows you to start monitoring promoter activation whenever you choose.

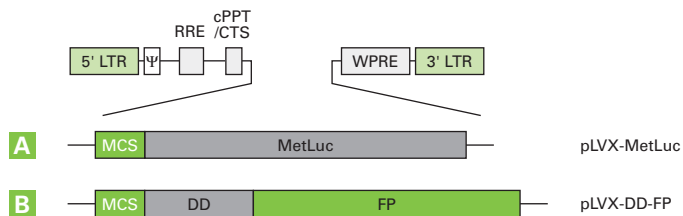


Figure 1. Lenti-X chemiluminescent (Panel A) and fluorescent (Panel B) reporter vectors. Lenti-X vectors contain sequence elements that facilitate lentiviral packaging and/or boost expression of your reporter, including the LTRs, packaging signal (Ψ), Rev response element (RRE), and central polypurine tract/central termination sequence (cPPT/CTS) from HIV-1; and the woodchuck hepatitis virus post-transcriptional regulatory element (WPRE). MetLuc = *Metridia* luciferase. DD = ligand-dependent destabilization domain. FP = fluorescent protein (AmCyan1, ZsGreen1, or tdTomato).

Save Time and Money using Live Cell Reporters

These systems are ideal for your studies with limited numbers of cells, e.g., stem cells, or to study multiple promoter activation cycles and/or time points, in order to produce many sets of data over time.

References

- High-Efficiency Lentiviral Packaging (October 2007) *Clontechiques* XXII(4): 1–2.
- Ready-To-Glow™ Secreted Luciferase System (July 2006) *Clontechiques* XXI(2):12–13.
- The Next Generation of Promoter Reporters (January 2009) *Clontechiques* XXIV(1)22–23.

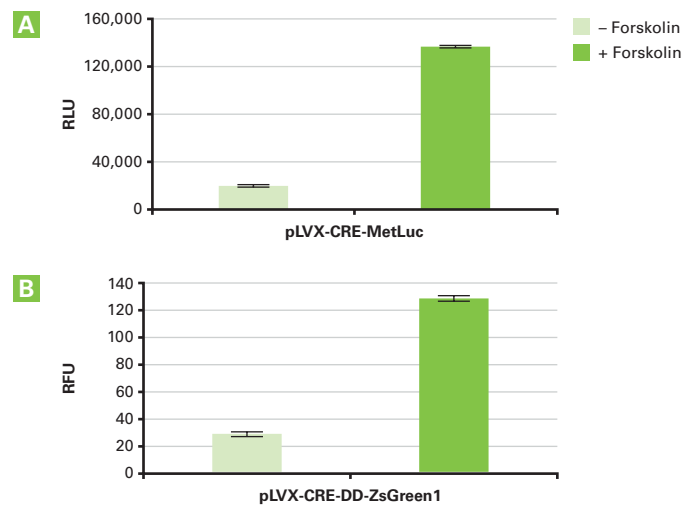


Figure 2. Lenti-X Reporter Systems provide low background and high signal intensity. HEK 293 cells were transduced with pLVX-CRE-MetLuc Reporter Vector (Panel A) or pLVX-CRE-DD-ZsGreen1 Reporter Vector (Panel B), treated with forskolin, and assayed according to the respective protocols. RLU = relative light units. RFU = relative fluorescence units.

Ordering Information

Product	Size	Cat. No.	
Lenti-X Ready-To-Glow Secreted Luciferase Reporter System	each	631746	NEW!
Lenti-X DD Cyan Reporter System	each	631748	NEW!
Lenti-X DD Green Reporter System	each	631751	NEW!
Lenti-X DD Red Reporter System	each	631753	NEW!
Lenti-X 293T Cell Line	1 ml	632180	
Shield1*	60 μ l	631037	
	200 μ l	631038	
	500 μ l	632189	

* The number of reactions depends on the concentration of Shield1 used. At the maximum suggested concentration (1,000 nM), 60 μ l = 30-plus reactions and 200 μ l = 1,000-plus reactions in a six-well plate.

Notice to Purchaser

Please see the BGH Poly A, CMV Sequence, cPPT Element, Lentiviral Expression Products, Living Colors® Fluorescent Protein Products, *Metridia* luciferase, ProteoTuner™ Protein Stabilization/Destabilization Products, Retroviral Packaging Systems, Tet-Based Expression Products, VSV-G Technology, and WPRE Technology licensing statements at www.clontech.com/licensing