

## Certificate of Analysis

### pGL4.27[*luc2P*/minP/Hygro] Vector:

Part No.                      Size  
E845A                         20µg

Part# 9PIE845  
Revised 10/16



Instructions for use of this product can be found in the pGL4 Luciferase Reporter Vectors Technical Manual #TM259, available online at: [www.promega.com/protocols](http://www.promega.com/protocols)

**Description:** The pGL4.27[*luc2P*/minP/Hygro] Vector<sup>(®-®)</sup> encodes the luciferase reporter gene *luc2P* and is designed for high expression and reduced anomalous transcription. The vector contains a multiple cloning region for insertion of a response element of interest upstream of a minimal promoter and the *luc2P* gene. *luc2P* is a synthetically derived luciferase sequence with humanized codon optimization. The *luc2P* gene also contains hPEST, a protein destabilization sequence. The protein encoded by *luc2P* responds more quickly than the protein encoded by the *luc2* gene upon induction. The vector backbone contains an ampicillin resistance gene to allow for selection in *E. coli* and a mammalian selectable marker for hygromycin resistance. See the *pGL4 Luciferase Reporter Vectors Technical Manual #TM259* for more information.

**Concentration:** 1µg/µl.

**GenBank® Accession#:** DQ904459

**Storage Buffer:** The pGL4.27[*luc2P*/minP/Hygro] Vector is supplied in 10mM Tris-HCl (pH 7.4), 1mM EDTA.

**Storage Conditions:** See the Product Information Label for storage recommendations. Avoid multiple freeze-thaw cycles and exposure to frequent temperature changes. These fluctuations can greatly alter product stability. See the expiration date on the Product Label.

**Usage Note:** Concentration gradients may form in frozen products and should be dispersed upon thawing. Mix well prior to use.

## Quality Control Assays

**Nuclease Assay:** Following incubation of 1µg of the vector in restriction digest buffer B at 37°C for 16 hours, no evidence of nuclease activity is detected by agarose gel electrophoresis.

**Physical Purity:**  $A_{260}/A_{280} \geq 1.80$ ,  $A_{260}/A_{250} \geq 1.05$  at pH 7.4.

**Sequence:** The pGL4.27[*luc2P*/minP/Hygro] Vector has been completely sequenced and has 100% identity with the published sequence, available at: [www.promega.com/vectors](http://www.promega.com/vectors)

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(®)U.S. Pat. No. 5,670,356.

(®)Patent Pending.

(®)U.S. Pat. No. 8,008,006 and European Pat. No. 1341808.

(®)U.S. Pat. No. 7,728,118.

Signed by:

R. Wheeler, Quality Assurance



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## Promega

### Promega Corporation

2800 Woods Hollow Road	
Madison, WI 53711-5399	USA
Telephone	608-274-4330
Toll Free	800-356-9526
Fax	608-277-2516
Internet	<a href="http://www.promega.com">www.promega.com</a>

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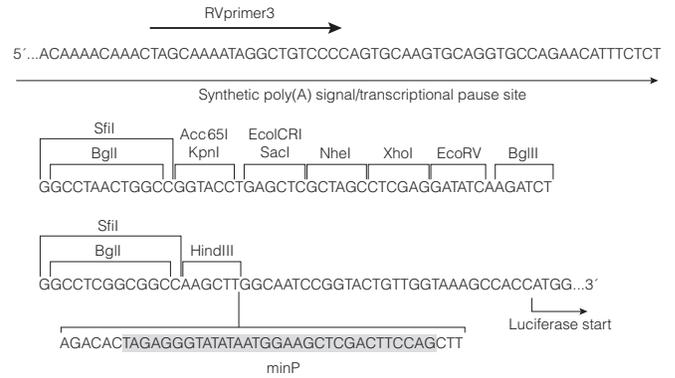
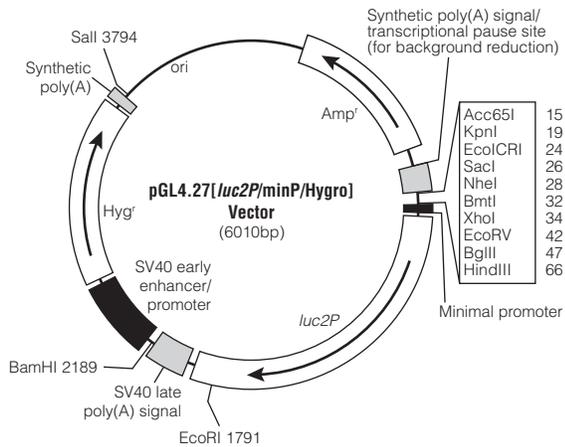
All specifications are subject to change without prior notice.

Product claims are subject to change. Please contact Promega Technical Services or access the Promega online catalog for the most up-to-date information on Promega products.

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## Features list and map for the pGL4.27[*luc2P*/minP/Hygro] Vector

Minimal promoter	78–108
<i>luc2P</i> reporter gene	141–1916
SV40 late poly(A) region	1956–2177
SV40 early enhancer/promoter	2225–2643
Synthetic hygromycin (Hyg <sup>r</sup> ) coding region	2668–3705
Synthetic poly(A) signal	3729–3777
Reporter vector primer 4 (RVprimer4) binding region	3844–3863
ColE1-derived plasmid replication origin	4101
Synthetic β-lactamase (Amp <sup>r</sup> ) coding region	4892–5752
Synthetic poly(A) signal/transcriptional pause site	5857–6010
Reporter vector primer 3 (RVprimer3) binding region	5959–5978



**Figure 2. Multiple cloning region of the pGL4.27[*luc2P*/minP/Hygro] Vector.**

Sequence information and restriction enzyme tables for the pGL4 Vectors are available online at: [www.promega.com/vectors/](http://www.promega.com/vectors/)

For more information see the *pGL4 Luciferase Reporter Vectors Technical Manual #TM259*, online at: [www.promega.com/protocols/](http://www.promega.com/protocols/)

### Summary of Changes, 8/15 Revision

The following changes were made to the 8/15 version of this document:

Legal disclaimers were updated to remove expired information.

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