## 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**

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**Description:** The pGL4.27[*luc2P*/minP/Hygro] Vector[a–e] 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**

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[b]U.S. Pat. No. 5,670,356.

[c]Patent Pending.

[d]U.S. Pat. No. 8,008,006 and European Pat. No. 1341808.

[e]U.S. Pat. No. 7,728,118.

Signed by:

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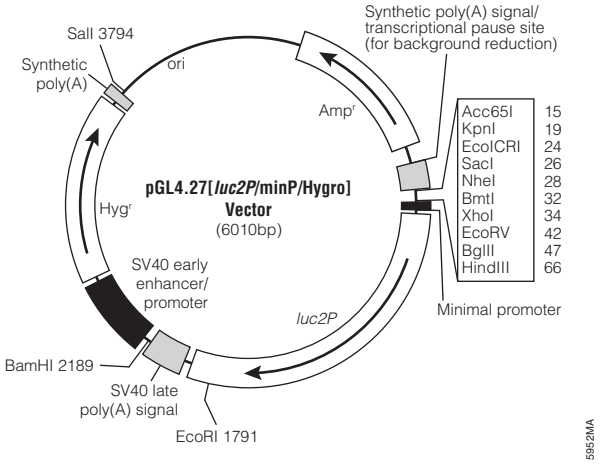
## Features list and map for the pGL4.27[*luc2P*/minP/Hygro] Vector

| | |
|---|---|
| Minimal promoter | 78–108 |
| *luc2P* reporter gene | 141–1916 |
| SV40 late poly(A) region | 1956–2177 |
| SV40 early enhancer/promoter | 2225–2643 |
| Synthetic hygromycin (Hyg$^r$) 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$^r$) coding region | 4892–5752 |
| Synthetic poly(A) signal/transcriptional pause site | 5857–6010 |
| Reporter vector primer 3 (RVprimer3) binding region | 5959–5978 |



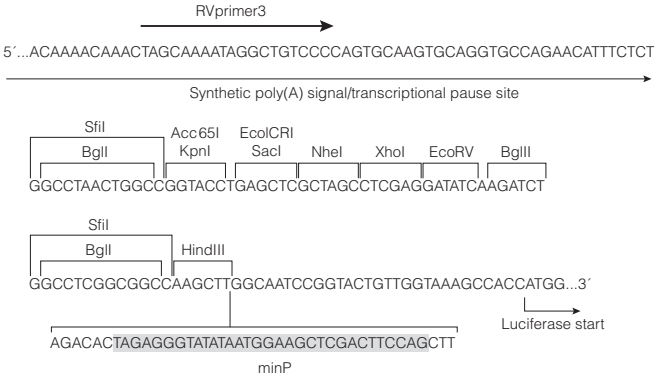




**Figure 2. Multiple cloning region of the pGL4.27[*luc2P*/minP/Hygro] Vector.**

Sequence information and restriction enzyme tables for the pGL4 Vectors are available online at: **www.promega.com/vectors/**

For more information see the *pGL4 Luciferase Reporter Vectors Technical Manual* #TM259, online at: **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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