

Certificate of Analysis

pGL4.28[*luc2CP*/minP/Hygro] Vector:

Part No. Size
E846A 20µg

Part# 9PIE846
Revised 10/16



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

Description: The pGL4.28[*luc2CP*/minP/Hygro] Vector^(a-e) encodes the luciferase reporter gene *luc2CP* 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 *luc2CP* gene. *luc2CP* is a synthetically derived luciferase sequence with humanized codon optimization. The *luc2CP* gene also contains hCL1 and hPEST, both of which are protein destabilization sequences. The protein encoded by *luc2CP* 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.

Concentration: 1µg/µl.

GenBank® Accession Number: DQ904460.

Storage Buffer: The pGL4.28[*luc2CP*/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 pGL4.28[*luc2CP*/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)U.S. Pat. No. 8,008,006 and European Pat. No. 1341808.

(d)Patent Pending.

(e)U.S. Pat. No. 7,728,118.

Signed by:

R. Wheeler, Quality Assurance



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pGL4.28[*luc2CP*/minP/Hygro] Vector Features List and Maps

Minimal promoter	78–108
<i>luc2P</i> reporter gene	141–1970
SV40 late poly(A) region	2007–2228
SV40 early enhancer/promoter	2276–2694
Synthetic hygromycin (Hyg ^r) coding region	2719–3756
Synthetic poly(A) signal	3780–3828
Reporter vector primer 4 (RVprimer4) binding region	3895–3914
<i>ColE1</i> -derived plasmid replication origin	4152
Synthetic β-lactamase (Amp ^r) coding region	4943–5803
Synthetic poly(A) signal/transcriptional pause site	5908–6061
Reporter vector primer 3 (RVprimer3) binding region	6010–6029

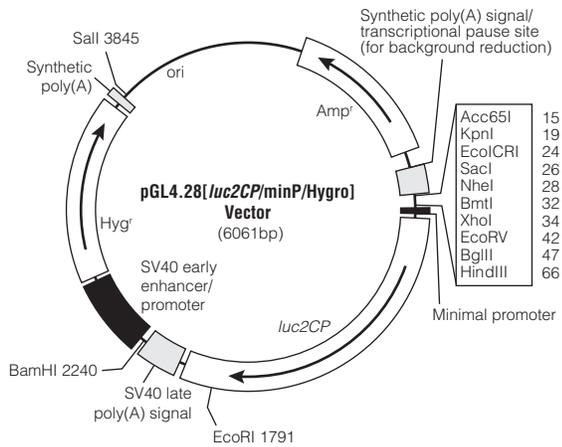


Figure 1. The pGL4.28[*luc2CP*/minP/Hygro] Vector map.

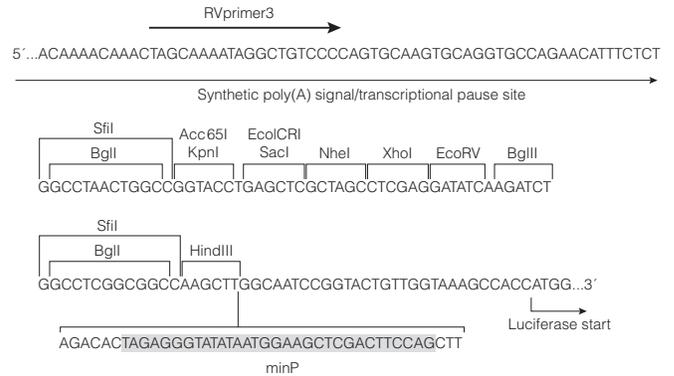


Figure 2. Multiple cloning region of the pGL4.28[*luc2CP*/minP/Hygro] Vector.

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

Further information on the use of pGL4 Vectors is available in Technical Manual #TM259, available 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.