

Certificate of Analysis

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

Part No. Size
E846A 20µg



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-f) 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

Signed by:

J. Stevens, Quality Assurance

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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.

^(f)The method of recombinant expression of *Coleoptera* luciferase is covered by U.S. Pat. Nos. 5,583,024, 5,674,713 and 5,700,673. A license (from Promega for research reagent products and from The Regents of the University of California for all other fields) is needed for any commercial sale of nucleic acid contained within or derived from this product, and from The Regents of the University of California for all other fields) is needed for any commercial sale of nucleic acid contained within or derived from this product.

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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

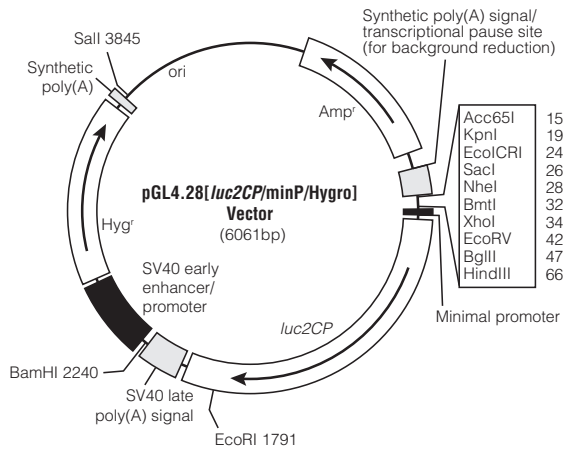


Figure 1. The pGL4.28[*luc2CP*/minP/Hygro] Vector map.

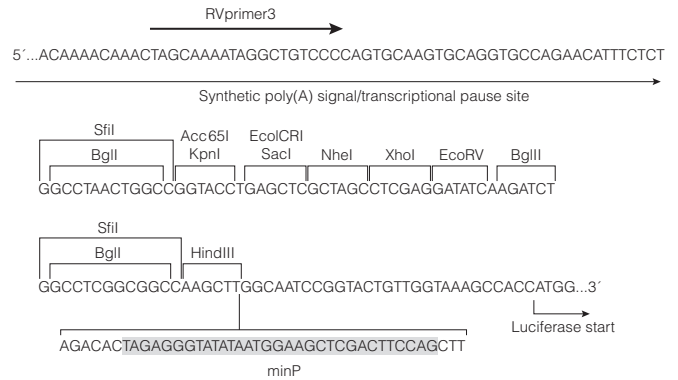


Figure 2. Multiple cloning region of the pGL4.28[*luc2CP*/minP/Hygro] Vector.

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