

## Certificate of Analysis

### pGL4.23[*luc2*/minP] Vector:

Part No.                      Size  
E841A                         20µg

Part# 9PIE841  
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 pGL4.23[*luc2*/minP] Vector<sup>(a-c)</sup> encodes the luciferase reporter gene *luc2* (*Photinus pyralis*) and is designed for high expression and reduced anomalous transcription. The pGL4.23[*luc2*/minP] Vector contains a multiple cloning region for insertion of a response element of interest upstream of a minimal promoter and a *luc2* gene. *luc2* is a synthetically-derived luciferase sequence with humanized codon optimization. The vector backbone contains an ampicillin resistance gene to allow for selection in *E. coli*.

See the *pGL4 Luciferase Reporter Vectors Technical Manual #TM259* for more information.

**Concentration:** 1µg/µl.

**GenBank® Accession Number:** DQ904455.

**Storage Buffer:** The pGL4.23[*luc2*/minP] Vector is supplied in 10mM Tris-HCl (pH 7.4), 1mM EDTA.

**Storage Conditions:** See the product information label for storage temperature 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 information 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 pGL4.23[*luc2*/minP] 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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<sup>(b)</sup>U.S. Pat. No. 5,670,356.

<sup>(c)</sup>U.S. Pat. No. 8,008,006 and European Pat. No. 1341808.

<sup>(d)</sup>Patent Pending.

<sup>(e)</sup>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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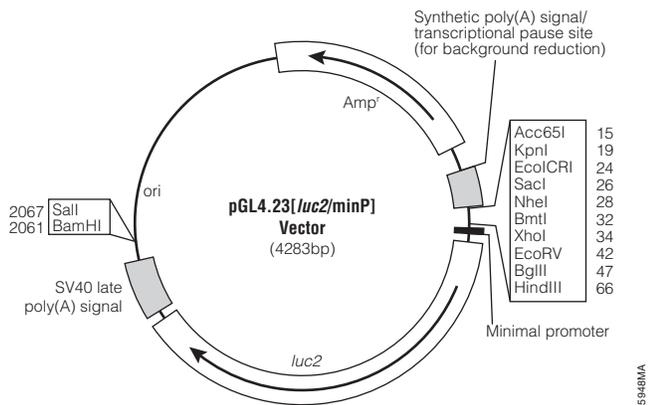
All specifications are subject to change without prior notice.

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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**pGL4.23[*luc2*/minP] Vector Features List and Maps:**

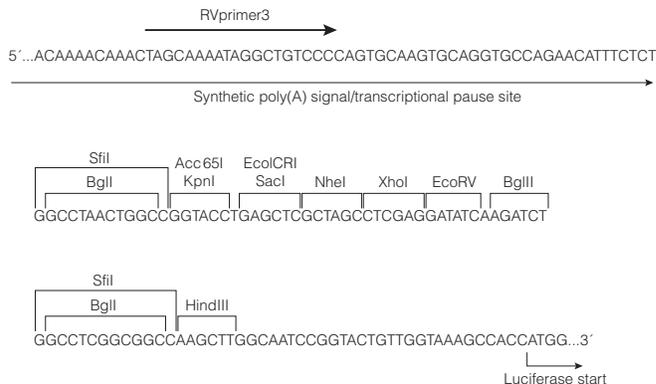
Multiple cloning region	1-70
Minimal promoter	78-108
<i>luc2</i> reporter gene	141-1793
SV40 late poly(A) region	1828-2049
Reporter Vector primer 4 (RVprimer4) binding region	2117-2136
<i>CoE1</i> -derived plasmid replication origin	2374
Synthetic β-lactamase ( <i>Amp<sup>r</sup></i> ) coding region	3165-4025
Synthetic poly(A) signal/transcriptional pause signal	4130-4283
Reporter Vector primer 3 (RVprimer3) binding region	4232-4251



**Figure 1. pGL4.23[*luc2*/minP] Vector map.**

**Summary of Changes:**

The following change was made to the 6/15 revision of this document: Expired product disclaimers were removed.



**Figure 2. Multiple cloning region for the pGL4.23[*luc2*/minP] 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)