

Certificate of Analysis

pGL4.83[*hRlucP*/Puro] Vector:

Part No.

E751A

Size

20µg



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

Description: The pGL4.83[*hRlucP*/Puro] Vector^(a-d) encodes the luciferase reporter gene *hRlucP* (*Renilla reniformis*) and is designed for high expression and reduced anomalous transcription. This vector also contains a mammalian selectable marker for puromycin resistance in which the number of transcription factor binding sites has been reduced and mammalian codon usage optimized. It has also been engineered with fewer consensus regulatory sequences than the pGL3 Vectors and a synthetic reporter gene that has been codon optimized for mammalian expression.

The pGL4.83[*hRlucP*/Puro] Vector is a basic vector with no promoter. However, it contains a multiple cloning region that allows cloning of a promoter of choice. The *hRlucP* reporter gene contains hPEST, a protein destabilization sequence. The protein encoded by *hRlucP* responds more quickly and with a greater magnitude to changes in transcriptional activity than the *hRluc* gene, its more stable counterpart.

Concentration: 1µg/µl.

GenBank® Accession Number: DQ188847.

Storage Buffer: The pGL4.83[*hRlucP*/Puro] 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 Notes:

1. For easy transfer from one pGL4 Vector to another, the multiple cloning region is consistent throughout the pGL4 Vector series. For easy transfer between pGL3 Vectors and pGL4 Vectors, many of the restriction enzyme sites present in the pGL3 Vectors are also present in the pGL4 Vectors.
2. 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 pGL4.83[*hRlucP*/Puro] Vector in standard restriction digest buffers at 37°C for 16–24 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 pGL4.83[*hRlucP*/Puro] 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. 7,906,282 and European Pat. No. 1341808.

^(c)Patent Pending.

^(d)U.S. Pat. No. 7,728,118.

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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	www.promega.com

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pGL4.83[*hRlucP*/Puro] Vector Features List and Maps

Multiple cloning region	1–70
<i>hRlucP</i> reporter gene	100–1158
SV40 late poly(A) signal	1198–1419
SV40 early enhancer/promoter	1467–1885
Synthetic puromycin-N-acetyltransferase (Puro ^r) coding region	1910–2509
Synthetic poly(A) region	2534–2582
Reporter Vector primer 4 (RVprimer4) binding region	2649–2668
Col/EI-derived plasmid replication origin	2906
Synthetic β-lactamase (Amp ^r) coding region	3697–4557
Synthetic poly(A) signal/transcriptional pause region	4662–4815
Reporter Vector primer 3 (RVprimer3) binding region	4764–4783

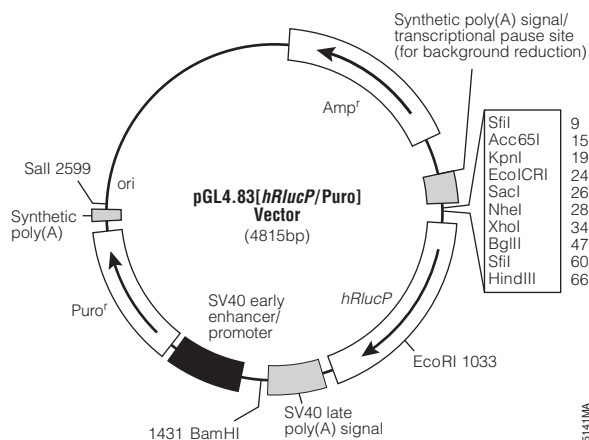


Figure 1. pGL4.83[*hRlucP*/Puro] Vector map.

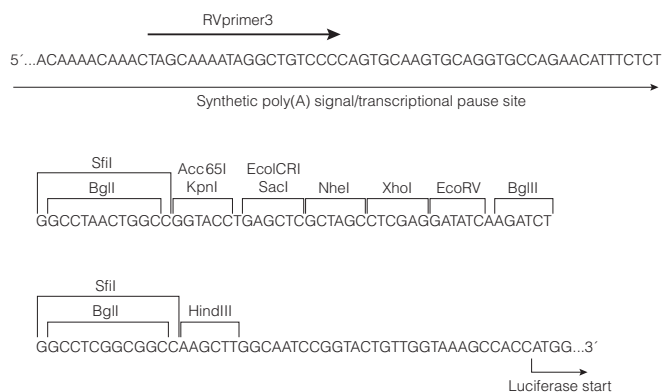


Figure 2. The multiple cloning region of the pGL4.83[*hRlucP*/Puro] Vector.

Vector sequence information, vector maps and restriction enzyme tables are available at: www.promega.com/vectors

For additional information see the *pGL4 Luciferase Reporter Vectors Technical Manual*, #TM259, available online: www.promega.com/protocols