Certificate of Analysis

pGL4.82[*hRluc*/Puro] Vector:

Part No.	Size
E750A	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**

Part# 9PIE750
Revised 6/13

AF9PI E750 0613E750

Description: The pGL4.82[*hRluc*/Puro] Vector[a–d] encodes the luciferase reporter gene *hRluc* (*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 pGL4.82[*hRluc*/Puro] Vector is a basic vector with no promoter. However, it contains a multiple cloning region that allows cloning of a promoter of choice.

Concentration: 1µg/µl.

GenBank® Accession Number: DQ188846.

Storage Buffer: The pGL4.82[*hRluc*/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 pGL4.82[*hRluc*/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} ≥1.80, A_{260}/A_{250} ≥1.05 at pH 7.4.

Sequence: The pGL4.82[*hRluc*/Puro] Vector has been completely sequenced and has 100% identity with the published sequence, available at: **www.promega.com/vectors**

Signed by: J. Stevens

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.

Part# 9PIE750
Printed in USA. Revised 6/13.

pGL4.82[*hRluc*/Puro] Vector Features List and Maps

Multiple cloning region	1–70
hRluc reporter gene	100–1035
SV40 late poly(A) region	1067–1288
SV40 early enhancer/promoter	1336–1754
Synthetic puromycin-N-acetyltransferase (Puro^r) coding region	1779–2378
Synthetic poly(A) region	2403–2451
Reporter Vector primer 4 (RVprimer4) binding region	2518–2537
*Col*E1-derived plasmid replication origin	2775
Synthetic β-lactamase (Amp^r) coding region	3566–4426
Synthetic poly(A) signal/transcriptional pause site	4531–4684
Reporter Vector primer 3 (RVprimer3) binding region	4633–4652

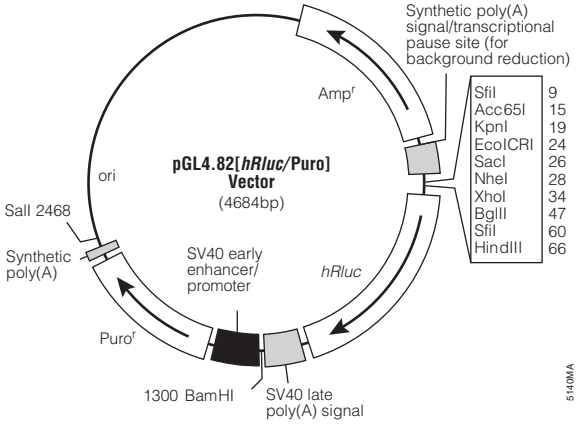

Figure 1. pGL4.82[*hRluc*/Puro] Vector map.

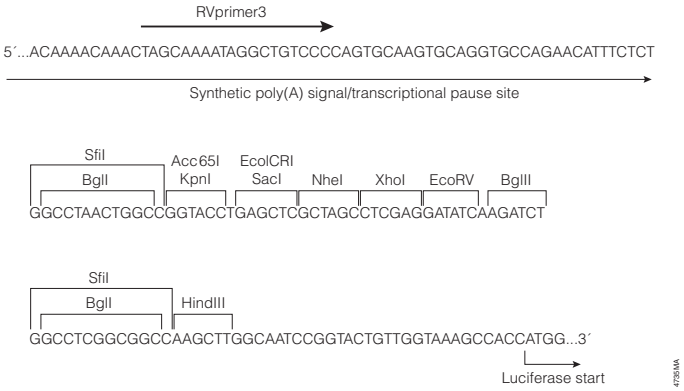

Figure 2. Multiple cloning region of the pGL4.82[*hRluc*/Puro] Vector.

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**

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