

## Certificate of Analysis

### pGL4.72[hRLucCP] Vector:

Part No.                      Size  
E690A                         20µg

Part# 9PIE690  
Revised 9/16



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

**Description:** The pGL4.72[hRLucCP] Vector<sup>(a-c)</sup> encodes the luciferase reporter gene *hRLucCP* (*Renilla reniformis*) and is designed for high expression and reduced anomalous transcription. The pGL4 Vectors are engineered with fewer consensus regulatory sequences and a synthetic gene, which has been codon optimized for mammalian expression.

The pGL4.72[hRLucCP] Vector has no promoter. However, it contains a multiple cloning region that allows for cloning of a promoter of choice. The *hRLucCP* reporter gene contains two protein destabilization sequences, hCL1 and hPEST. The protein encoded by *hRLucCP* responds more quickly and with greater magnitude to changes in transcriptional activity than the *hRLuc* gene, its more stable counterpart.

**Concentration:** 1µg/µl.

**Storage Buffer:** The pGL4.72[hRLucCP] 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 pGL4.72[hRLucCP] Vector in standard restriction digest buffers at 37°C for 16–24 hours, no evidence of nuclease activity was 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 pGL4.72[hRLucCP] Vector has been completely sequenced and is 100% identical to the published sequence, available at: [www.promega.com/vectors](http://www.promega.com/vectors)

Signed by:

R. Wheeler, Quality Assurance

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## pGL4.72[hRlucCP] Vector Features and Circle Map

The following features are present in the vector based on nucleotide sequence.

Multiple cloning region	1-70
<i>hRlucCP</i> reporter gene	100-1212
SV40 late poly(A) signal	1249-1470
Reporter Vector primer 4 (RVprimer4) binding region	1538-1557
<i>ColEI</i> -derived plasmid replication origin	1795
Synthetic $\beta$ -lactamase ( <i>Amp<sup>r</sup></i> ) coding region	2586-3446
Synthetic poly(A) signal/transcriptional pause site	3551-3704
Reporter Vector primer 3 (RVprimer3) binding region	3653-3672

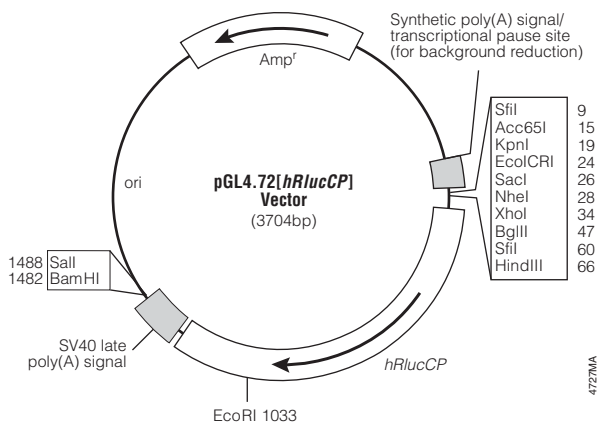


Figure 1. pGL4.72[hRlucCP] Vector map.

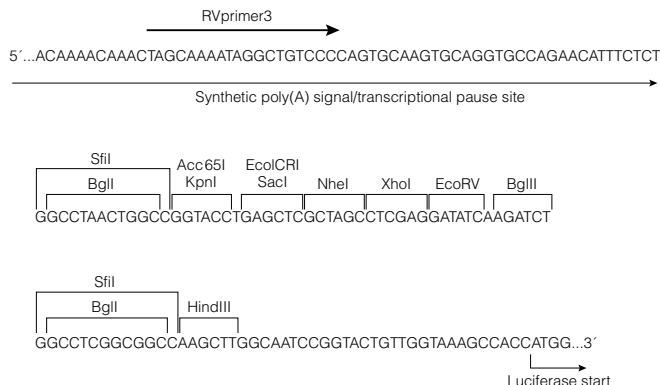


Figure 2. Multiple cloning region of the pGL4.72[hRlucCP] Vector.

Sequence information, vectors maps and restriction enzyme tables for the pGL4 Vectors are available online at: [www.promega.com/vectors](http://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](http://www.promega.com/protocols)