Product Contents

pGL4.20[*luc2*/Puro] Vector:

Part No.	Size
E675A	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 pGL4.20[*luc2*/Puro] Vector[a–d] encodes the luciferase reporter gene *luc2* (*Photinus pyralis*) 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. This vector is engineered with fewer consensus regulatory sequences than the pGL3 Vectors and a synthetic reporter gene, which has been codon optimized for mammalian expression.

The pGL4.20[*luc2*/Puro] Vector is a basic vector with no promoter. However, it contains a multiple cloning region to allow for the cloning of a promoter of choice.

Concentration: 1µg/µl.

GenBank® Accession Number: DQ188840

Storage Buffer: The pGL4.20[*luc2*/Puro] Vector is supplied in 10mM Tris-HCl (pH 7.4), 1mM EDTA.

Storage Conditions: Store the pGL4.20[*luc2*/Puro] Vector at –20°C. 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. The method used to purify this vector yields DNA that may be suitable for transfection of mammalian cells without further manipulation.
2. 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.
3. Concentration gradients may form in frozen products and should be dispersed upon thawing. Mix well prior to use.

Quality Control Assays

Contaminant Assays

Contaminating Nucleic Acids: RNA, single-stranded DNA and chromosomal DNA are not evident in specified quantities of the vector as determined by agarose gel electrophoresis.

Nuclease Assay: Following incubation of 1µg of the vector in Restriction Enzyme Buffer at 37°C for 16–24 hours, no evidence of nuclease activity is detected by agarose gel electrophoresis.

Physical Purity: $A_{260}/A_{280} \geq 1.80$, $A_{260}/A_{250} \geq 1.05$.

Functional Assays

Identity Assay: The vector has been sequenced completely and has 100% identity with the published sequence available at: www.promega.com/vectors/

Restriction Digestion: The functional purity of the vector DNA is verified by successful digestion with restriction enzymes at the optimal temperature for one hour. Samples are examined by agarose gel electrophoresis, comparing cut and uncut vector DNA with marker DNA.

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

Signed by:

R. Wheeler, Quality Assurance

Part# 9PIE675
Revised 10/16

AF9PIE675 1016E675

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pGL4.20[*luc2*/Puro] Vector Features List and Maps

Multiple cloning region	1–70
luc2 reporter gene	100–1752
SV40 late poly(A) signal	1787–2008
SV40 early enhancer/promoter	2056–2474
Synthetic puromycin-N-acetyltransferase (Puro^r) coding region	2499–3098
Synthetic poly(A) signal	3123–3171
Reporter Vector primer 4 binding region	3238–3257
Co/EI-derived plasmid replication origin	3495
Synthetic β-lactamase (Amp^r) coding region	4286–5146
Synthetic poly(A) signal/transcriptional pause site	5251–5404
Reporter Vector primer 3 binding region	5353–5372

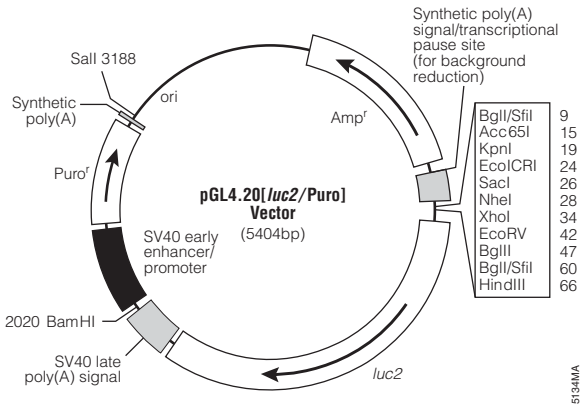

Figure 1. pGL4.20[*luc2*/Puro] Vector circle map.

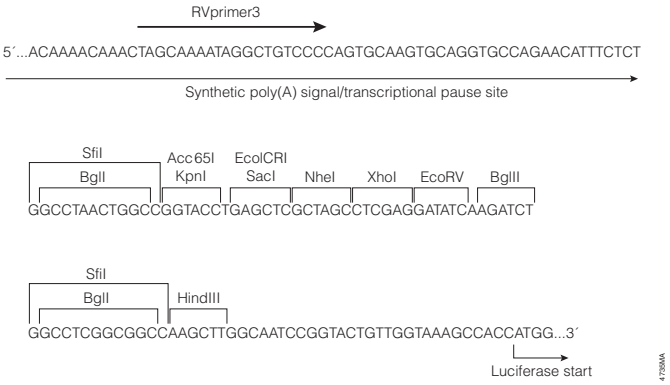

Figure 2. Multiple cloning region of the pGL4.20[*luc2*/Puro] Vector.

Sequence information and restriction enzyme tables for the pGL4 Vectors are available online at: **www.promega.com/vectors**
Further information on use of the pGL4 Vectors is available in Technical Manual #TM259 available online at: **www.promega.com/protocols**

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

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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.

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