Certificate of Analysis

pGL4.74[*hRluc*/TK] Vector:

Part No.	Size
E692A	20µg

Part# 9PIE692
Revised 10/16

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

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Description: The pGL4.74[*hRluc*/TK] Vector[a-d] encodes the luciferase reporter gene *hRluc* (*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 pGL4.74[*hRluc*/TK] Vector contains the *hRluc* luciferase reporter gene and an HSV-TK promoter and can be used as an expression control or a co-reporter vector.

Concentration: 1µg/µl.

GenBank® Accession Number: AY738230.

Storage Buffer: The pGL4.74[*hRluc*/TK] Vector is supplied in 10mM Tris-HCl (pH 7.4), 1mM EDTA.

Storage Conditions: See the product information label for storage temperature recommendations and expiration date information.

Usage Notes: 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.

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[b]Patent pending.

[c]U.S. Pat. No. 7,906,282 and European Pat. No. 1341808.

Signed by:

R. Wheeler, Quality Assurance

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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Features List and Map for the pGL4.74 [*hRluc*/TK] Vector

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

HSV-TK promoter	27–779
hRluc reporter gene	815–1750
SV40 late poly(A) signal	1784–2005
Reporter Vector primer 4 binding region	2071–2090
ColEI-derived plasmid replication origin	2330
Synthetic β-lactamase (Amp^r) coding region	3119–3979
Synthetic poly(A) signal/transcriptional pause site	4084–4237
Reporter Vector primer 3 binding region	4186–4205

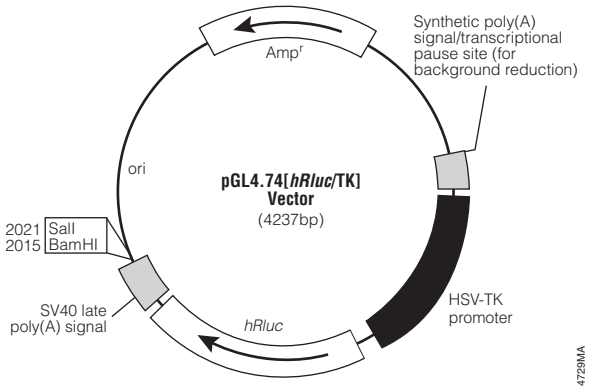

Figure 1. pGL4.74 [*hRluc*/TK] Vector circle map and sequence reference points.

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