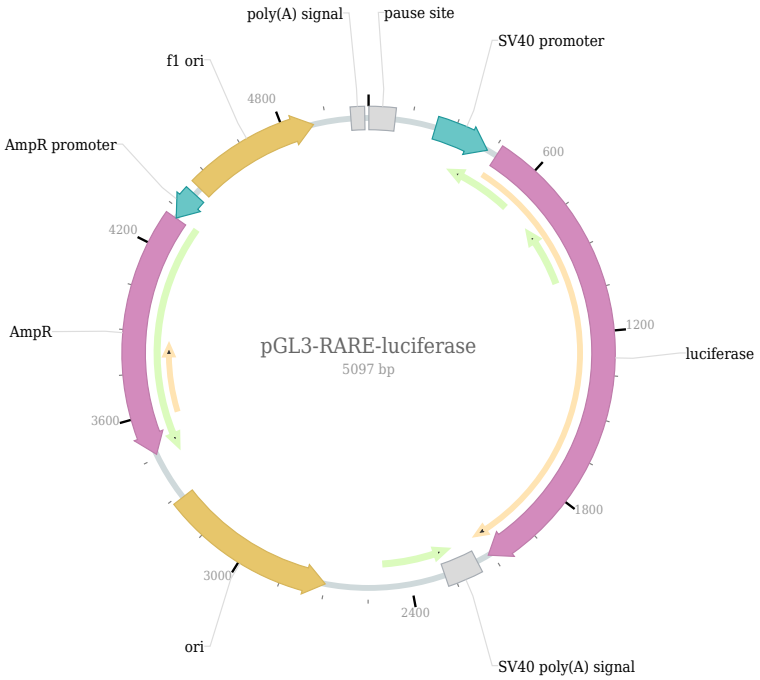
pGL3-RARE-luciferase

Vector ID	V014204
Antibiotic Resistance	Ampicillin
Length	5097 bp
Vector Type	Transcription factor reporter
Host	Mammalian cells

Product Information

Replication Origin	ori
Growth Strain(s)	DH10B
Growth Temperature	37℃
Comment	The pGL3 - RARE - luciferase vector is an important tool for studying the RA signaling pathway. It is a pGL3 - based reporter vector with a RARE, a specific DNA sequence binding to RAR and its heterodimer to regulate gene transcription when an RA signal activates the downstream mechanism and initiates luciferase gene expression. It is used in RA signaling pathway and gene transcription regulation research. In the former, it can be transfected into cells to detect activity by luciferase, like observing BMP's effect on RARE - luciferase activity in studying its interaction with the RA pathway. In the latter, it helps understand element functions and interactions by analyzing luciferase activity changes under different conditions. The vector has high specificity for the RA signal as its RARE sequence binds specifically to RAR and its heterodimer, initiating luciferase gene transcription only when the RA signal and receptor bind, reducing interference. It also has good sensitivity, with luciferase activity changing accordingly to slight RA signal changes in cells, enabling precise study of activity changes under different conditions and providing a reliable detection means for understanding the RA signaling pathway's function.

Vector Map



Plasmid Resuspension Protocol

1. Centrifuge at 5,000×g for 5 min.
2. Carefully open the tube and add sterile water to dissolve the DNA: add 20 µl for 5 µg plasmid, and 100 µl for 100 µg plasmid.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin to concentrate the liquid at the bottom. Speed is less than 5000×g.
5. Store the plasmid at -20 ℃.