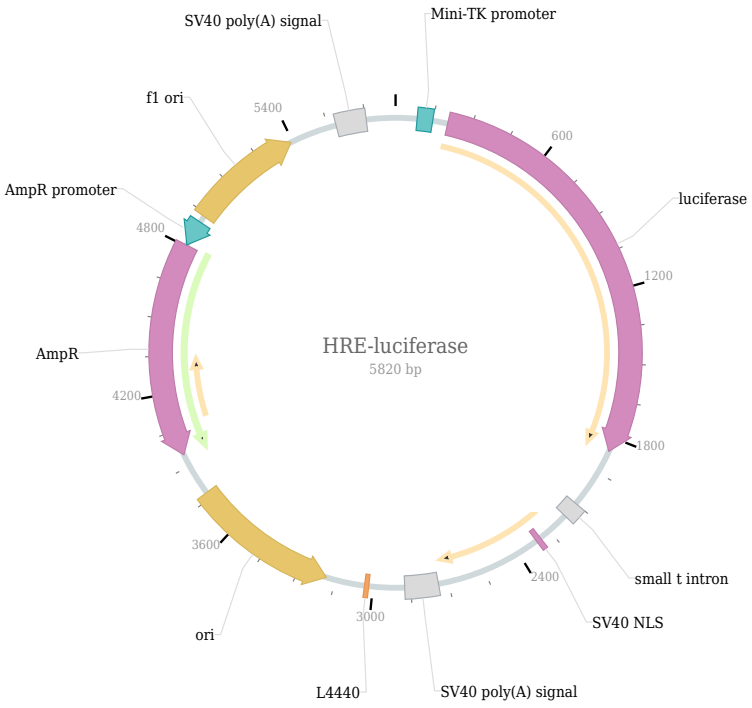
HRE-luciferase

Vector ID	V007461
Antibiotic Resistance	Ampicillin
Length	5820 bp
Vector Type	Mammalian Expression, Luciferase

Product Information

Replication Origin	ori
Copy Number	High Copy
Promoter	Mini-TK
Cloning Method	Restriction Enzyme
3' Primer	Luc_N_Rev
Growth Strain(s)	DH10B
Growth Temperature	37℃
Comment	The HRE - luciferase plasmid is a crucial tool in research. It's a pGL2 vector with three hypoxia response elements (HRE) from the Pgk - 1 gene upstream of the firefly luciferase gene. This design enables it to respond to hypoxic conditions and regulate luciferase expression. It has wide applications. In fields such as tumor research, it can be used to study the transcriptional activity of hypoxia - inducible factor 1 (HIF - 1). In gene regulation research, it reveals the roles of genes and proteins in the HIF - 1 pathway. The plasmid is used via transfection with Mirus TransIT Transfection reagent and cotransfection with TK - Renilla luciferase for efficiency control. It has high specificity for hypoxia and good sensitivity in detecting HIF - 1 activity changes, making it valuable for research.

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 ℃.