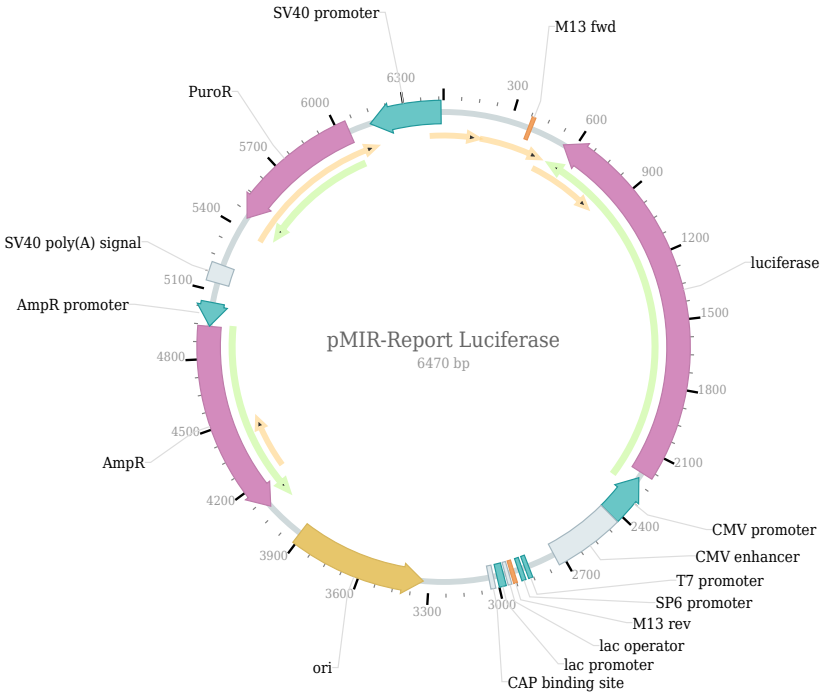
pMIR-Report Luciferase

Vector ID	V012937
Antibiotic Resistance	Ampicillin
Length	6470 bp
Vector Type	Signal transduction
Host	Mammalian cells

Product Information

Replication Origin	ori
Selection Marker	Puro
Promoter	CMV
Growth Strain(s)	DH10B
Growth Temperature	37℃
Comment	pMIR-Report Luciferase is an essential molecular biology tool plasmid designed for miRNA research. It features a luciferase reporter gene that emits a detectable signal upon expression, allowing for precise quantification of gene expression levels. The plasmid has a specific region where miRNA binding sites, like the 3′ untranslated region (UTR) of genes such as grouper TRAF6, can be inserted. This enables the investigation of miRNA-target interactions. Compatible with transfection into various cell types, such as grouper spleen (GS) cells, it is used in procedures where the target-containing luciferase plasmids are constructed by cloning UTR fragments into the vector and then cotransfected with miRNAs or controls. The luciferase activity assay measures the impact of miRNAs on target gene expression. Overall, it plays a crucial role in validating miRNA targets and understanding miRNA-mediated gene regulation, providing valuable insights into biological processes such as immune responses and virus pathogenesis.

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 ℃.