pTA-Luc

Vector ID	V006860
Antibiotic Resistance	Ampicillin
Length	4871 bp
Vector Type	Signal Pathway Reporter Vectors

Product Information

Replication Origin	ori
Promoter	minP
Cloning Method	Enzyme digestion and ligation
Comment	pTA-Luc is a member of the MercuryTM product line of signal transduction reporter vectors. This vector is designed for analyzing enhancer sequences by assaying for expression of the firefly luciferase (luc) gene from Photinus pyralis (1). In addition, pTA-Luc contains the minimal TA promoter, the TATA box from the herpes simplex virus thymidine kinase promoter (PTA). Located downstream of PTA is the luciferase reporter gene. pTA-Luc vector maintains constitutive levels of luciferase in transformed cells.The vector backbone also contains a pUC origin of replication, and an ampicillin resistance gene for propagation and selection in E. coli.pTA-Luc is provided as a control for monitoring constitutive levels of luciferase activity in MercuryTM pathway profiling experiments. This vector is ideal for use as a negative control or for studying putative enhancers that are inserted upstream of the luciferase reporter gene. Luciferase is a highly sensitive enzymatic reporter that can be assayed by any standard luciferase-detection method, providing quantitative data on induction levels. pTA-Luc can be transfected into mammalian cells by any standard method. For selecting stable clones, cotransfect with a vector containing an antibiotic resistance gene, such as neomycin, hygromycin, or puromycin, and select resistant clones.

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 ℃.